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# AN ESSAY CONCERNING MAN AND HIS RELATION TO THE WORLD.

BY

HERMANN LOTZE.

Translated from the German

BY

ELIZABETH HAMILTON AND E. E. CONSTANCE JONES.

*SECOND EDITION*

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# TRANSLATOR'S PREFACE.

THIS translation of the *Mikrokosmus* was begun by Miss Hamilton, daughter of the late Sir William Hamilton of Edinburgh, the distinguished metaphysician. Unhappily Miss Hamilton did not live to finish the work she had undertaken, and her translation ends at p 659 of this volume.

The rest of the book, including the Introduction, has been translated by me; and I have also revised Miss Hamilton's work.

The *Mikrokosmus* was originally published in three volumes: vol. I. containing Books I–III., vol. II. Books IV.–VI., and vol. III. Books VII.–IX. In the original the sections are not numbered, and the Table of Contents consists merely of the headings of chapters collected together, without any reference of headings to pages. In the translation I have numbered the sections, and in the Table of Contents referred the headings to sections, and the sections to pages, and supplied a few headings where they seemed to be required. The small number of footnotes which occur in the translation have been added by me.

I wish to express my thanks to Dr. Henry Sidgwick, Knightbridge Professor of Moral Philosophy at Cambridge, for advice which he has given me in reference to my part in this work. I am also indebted to the kindness of Mr. James Ward, Fellow of Trinity College, for suggestions, and help in some cases of difficulty. The proofs have been corrected by Mr. Jacobs of St. John's College, to whom many improvements and emendations are due. For the substantial correctness of the translation throughout I alone am responsible.

E. E. C. JONES.

GIRTON COLLEGE, CAMBRIDGE,
*July* 1885.

# AUTHOR'S INTRODUCTION.

BETWEEN spiritual needs and the results of human science there is an unsettled dispute of long standing. In every age the first necessary step towards truth has been the renunciation of those soaring dreams of the human heart which strive to picture the cosmic frame as other and fairer than it appears to the eye of the impartial observer. And no doubt that which men are so ready to set in opposition to common knowledge as being a higher view of things, is but a kind of prophetic yearning, which, though well aware of the limits that it seeks to transcend, knows but little of the goal that it would reach. Such views, indeed, though they have their source in the best part of our nature, receive their distinctive character and colouring from very various influences. Fed by many doubts and reflections concerning the destinies of life and drawn from a range of experience that at the best is limited, they neither escape the influences of transmitted culture and temporary tendencies, nor are they even independent of those natural changes of mental mood which take place in men, and are different in youth from what they are after the accumulation of manifold experiences. It cannot be seriously hoped that such an obscure and unquiet movement of men's spirits should furnish a juster delineation of the connection of things than the careful investigations of science, in which that power of thought which all share in is brought into action. Though we cannot command the heart to suppress its questionings and longings, we yet hold that it can expect a response to them only as an incidental result of knowledge which starts from a less emotional and therefore a clearer point of view

But the growing sense of its own importance possessed by science, which after centuries of doubt sees different departments of phenomena brought into subjection to unquestionable laws, threatens to distort this juster relation between cognition and spiritual needs in a new way. For not content with avoiding, at the beginning of scientific inquiries, the importunate questions with which our wishes, dreams, and hopes are but too ready to confuse the work in its initial stage, men go further, and deny that there is any obligation to return to these questions at all in the course of investigation. Science being, it is said, a pure service of truth for truth's sake, is not called upon to consider whether the selfish wishes of men's souls are satisfied or not. Thus here, too, men pass from timidity to presumptuous boldness. Having once tasted the delight of impartial and wholly unfettered investigation, they rush into a sham and puerile kind of heroism that glories in having renounced that which no one has ever any right to renounce; and reposing boundless confidence in assumptions which are by no means incontestable, estimate the truth of their new philosophic views in direct proportion to the degree of offensive hostility which these exhibit towards everything—except science—that is held sacred by the living soul of man.

This deification of truth is, it seems to me, neither just, regarded as an independent estimation of its value, nor calculated to create conviction, at which science must always aim.

If the object of all human investigation were but to produce in cognition a reflection of the world as it exists, of what value would be all its labour and pains, which could result only in vain repetition, in an imitation within the soul of that which exists without it? What significance could there be in this barren rehearsal—what should oblige thinking minds to be mere mirrors of that which does not think, unless the discovery of truth were in all cases likewise the production of some good, valuable enough to justify the pains expended in attaining it? The individual, ensnared

by that division of intellectual labour that inevitably results from the widening compass of knowledge. He may at times forget the connection of his narrow sphere of work with the great ends of human life; it may at times seem to him as though the furtherance of knowledge for the sake of knowledge were an intelligible and worthy aim of human effort. But all his endeavours have in the last resort but this one meaning, that they, in connection with those of countless others, should combine to trace an image of the world from which we may learn what we have to reverence as the true significance of existence, what we have to do and what to hope. That strictly disinterested investigation which, without any reference to these questions, co-operates in the building up of knowledge, exhibits wise self-restraint in awaiting a late but full answer from the combined results of many lines of inquiry, preferring this to those premature and one-sided elucidations from subordinate and accidental standpoints which do indeed set our questionings at rest but only very imperfectly. Hence to the disconnected impatient questions to which the stress of human existence gives rise, science may withhold an immediate answer, and may refer men to the progress of investigation, which will dissipate many difficulties, without introducing those new perplexities in which isolated answers to pressing doubts are always apt to entangle us. But taking truth as a whole, we are not justified in regarding it as a mere self-centred splendour, having no necessary connection with those stirrings of the soul from which, indeed, the impulse to seek it first proceeded. On the contrary, whenever any scientific revolution has driven out old modes of thought, the new views that take their place must justify themselves by the permanent or increasing satisfaction which they are capable of affording to those spiritual demands, which cannot be put off or ignored.

The very aims of science itself must equally determine it to seek this ground of acceptance. For where does science itself exist but in the convictions of those who are wholly persuaded of its truth? And it will never produce such convictions if it forget that every region which it investi-

gates, all the departments of the mental and the physical world, had been explored and taken possession of by our hopes and wishes and anticipations long before any systematic investigation was thought of. Science comes everywhere too late to meet with a thoroughly impartial reception; it finds already established in all quarters that Philosophy of the Feelings which will hinder the course of scientific proof with all the force due to the intensé mental longing from which it arose. And where reluctant conviction can be forced upon men in detail, it can be as easily made useless on the whole by the remembrance that in the last resort the authority even of those first principles by deductions from which science would compel our assent, rests upon nothing better than immediate belief in their truth. Men think, too, that they are even more justified in clinging with a like immediate belief to that view of the world which seems to have its truth corroborated by its consonance with our wishes. Thus it comes to pass that science as a whole is put on one side, and regarded as a maze in which cognition, detached from its connection with the whole living mind, has become entangled in a way impossible to follow in detail.

Though a man may revel in this faith in the world of feeling, he cannot avoid making use of the advantages of science at every step in practical life, and thus tacitly acknowledging its truth; just as little can a man live for science without experiencing the joy and the burden of existence, and feeling himself everywhere surrounded by a cosmic order of another kind, on which science sheds at best but scanty enlightenment. Can the difficulty be evaded more easily than by trying to take part in both worlds, to belong to both, yet without uniting the two? To follow—in science—the principles of cognition to their most extreme results, and to allow oneself—in practical life—to be impelled in quite other directions by traditional habits of belief and action?

That this twofold and inconsistent conviction is often the only solution that men arrive at need not surprise us; but it

would be a pity to commend it as the right view of our relation to the world. It is true that the imperfection of human knowledge may compel us, when we have used our utmost endeavours, to confess that we cannot build up the results of cognition and of faith so as to form a complete and perfect structure; but we can never look on indifferently when we see cognition undermining the foundations of faith, or faith calmly putting aside as a whole that which scientific zeal has built up in detail. On the contrary, we must be ever consciously endeavouring to maintain the rights of each, and to show how far from insoluble is the contradiction in which they appear to be inextricably involved.

The pride of philosophic inquiry, and the ceaseless advance of physical science, have attacked from different sides that cosmic view in which the human soul found its longings satisfied. But the disturbances caused by the assaults of philosophy have in our time been avoided in a most efficacious manner, namely by the complete indifference with which the age turns away from and disregards the labours of speculation. It has not been so easy to escape the far more importunate persuasiveness of the natural sciences, the assertions of which are confirmed at every step by the experiences of daily life. The excessive influence which the really magnificent development of these sciences exerts upon all the tendencies of our age infallibly calls forth a proportionally increasing resistance to the injuries which it is supposed will be inflicted by it upon that which is of supreme importance in human culture. Thus it comes to pass that the old contradictions rise again to battle; on the one hand knowledge of the world of sense with its ever-growing wealth of exact science and the persuasive force of intuitable facts; on the other hand those vague convictions regarding the supersensuous world, which—not having an absolutely fixed and certain content—are hardly susceptible of proof, but—being sustained by an ever-renewed consciousness of their necessary truth—are still less susceptible of refutation. That this contest between the two is an unnecessary torment which

we inflict upon ourselves by terminating investigation prematurely, is the conclusion that I desire to establish.

Physical science is certainly wrong in turning away altogether from the æsthetic and religious regions of thought which are customarily regarded as affording a higher view of things. It fears—needlessly—that its sharply-defined notions and its solid fabric of method would be disturbed by the admission of elements which — being themselves incalculable — would necessarily communicate their own indefiniteness and mistiness to all that comes into contact with them; and it forgets that its own fundamental elements, the ideas of forces and natural laws, are not the ultimate components of the threads that weave the texture of reality. On the contrary, when we exercise keener insight, they too lead us back to that same supersensuous region of which we cannot compass the boundaries.

But not less baseless is that which, on the other hand, opposes and hinders the recognition of the mechanical view of Nature—the anxious fear lest its results should cause all life and freedom and poetry to disappear from the world. How often has this fear been expressed, and how often has the irresistible progress of discoveries opened new sources of poetry in the place of those which had to be filled up! The strong sense of *home*, with its nearness and sacredness, which could enable an isolated people, ignorant of the boundless human life beyond, to regard itself as making up the whole of humanity, and every hill and fountain of the land as being under the guardian care of some special divinity—this unifying of the divine and human has everywhere disappeared with the advance of geographical knowledge consequent on growing intercourse between different nations. But the enlarged prospect thus gained has not spoiled, but only changed and enhanced the poetical charm of the world. Astronomy by its discoveries upset men's notions both of the heavens and of the earth; it resolved the former, which had been regarded as the visible dwelling-place of the gods, into the immensity of an airy firmament in which imagination could no longer

fix the home of supersensuous beings; it transformed the earth, the sole stage of life and history, into one of the smallest parts of the boundless universe. And step by step this disturbance of traditional views pursued its further course. The earth became, instead of a motionless centre, a wandering planet, circling round a sun which formerly seemed to exist only to beautify and serve it; even the music of the spheres was hushed, and men generally have come to agree that the all-embracing world in which we, with our hopes and wishes and endeavours, dwell, is a voiceless system of countless heavenly bodies, obeying universal laws.

That this transformation of cosmographic views has in the course of history changed popular imagination in the most important manner, no one can deny. When the earth was regarded as a disc, and the familiar boundaries of a man's native land were held to comprise all the highest and deepest secrets of the cosmic order—the visible summit of Olympus and the gates of the underworld, at a distance that was within men's reach—human life was certainly different from what it is now—now that the earth is held to be a revolving sphere that seems to have neither within it nor around it in the empty immensity of the atmosphere, place for that mystery through a sense of which alone human life is so fertilized as to produce its fairest fruit. Past ages, guided by a thread of sacred tradition, could trace back the crowd of nations that fill the motley mart of life to the quiet groves of Paradise, in the shades of which the manifold variety of human races found the unifying consciousness of a common origin. The discovery of new regions of the earth disturbed this belief; other nations came into sight, ignorant of the old traditions, and the common cradle of mankind came to be placed far beyond the extremest limits of historical remembrance. And finally, even the inflexible rind of the planet of which men believed that they had held possession from the time of its creation opened its closed mouth and told of countless ages of existence in which this human life, with all its presumption and its doubt, did not yet exist, and creative Nature, self-sufficing

gave birth to numerous species of living creatures, which arose and passed away one after the other.

Thus all the familiar boundaries which used to fence in our life with grateful certainty are done away; the outlook around us has become immeasurable, unlimited, and cold. But all these enlargements of knowledge have neither driven poetry out of the world, nor affected our religious convictions otherwise than beneficially; they have driven us to seek for and to find with greater intellectual effort, in a supersensuous world, that which we can no longer regard as near and directly intuitable. The satisfaction which our souls used to find in cherished views, has always become possible under different forms when these views had to be sacrificed to the progress of science. As in the life of the individual, so in the history of the human race, unavoidable changes take place in the definite outlines of the picture in which man's inalienable and highest aspirations are represented. Vain is every endeavour to resist the clear light of science, and to hold fast any view of which we have a haunting secret conviction that it is but an evanescent dream; but equally ill-advised is the despair that gives up that which must ever remain the immoveable centre of human civilization, whatever change of form it may undergo. Rather let us admit that in the obscure impulse to that higher aspect of things which we sometimes glory in, and sometimes feel incapable of rising to, there is yet a dim consciousness of the right path, and that every objection of science to which we attend does but disperse some deceptive light cast upon the one immutable goal of our longings by the changing standpoints of growing experience.

That undeifying of the whole cosmic frame which the discoveries of past times have irrevocably accomplished in overthrowing mythology, is an event which cannot, we may hope, be any longer a source of pain; and the last lament over it, poured forth in Schiller's *Gotter Griechenlands*, will never be followed by any attempt to re-establish this lost faith, in opposition to the teachings of science. Great revolutions of religious views have made men forget the loss, and furnished

far more than adequate compensation for it. But as the growing farsightedness of astronomy dissipated the idea that the great theatre of human life was in direct connection with divinity, so the further advance of mechanical science begins to threaten with similar disintegration the smaller world, the *Microcosm of man*. In saying this, I do not intend to allude more than incidentally to the increasing diffusion of materialistic views which strive to trace back all mental life to the blind working of material mechanism. Broad and confident as the current of these views flows on, yet it by no means has its source in inevitable assumptions, bound up inseparably with the spirit of a mechanical investigation of Nature. But even within the limits in which this has a better right to move, the disintegrating and destructive activity of such investigation is plain enough and begins to dispute that pervading unity of body and soul upon which seemed to depend all the beauty and living activity of animate creatures, and all the significance and worth of their intercourse with the external world. The assaults of physiological science have been directed against the truth of sensuous cognition, against the unfettered exercise of will in movement, against the creative spontaneous development of material life generally, and have thus called in question all those characteristics which for unsophisticated feeling contain the very core of life's poetry. We cannot therefore be surprised at the steadfastness with which the Philosophy of the Feelings here seeks to oppose itself as a higher view of things, to the convincing representations of the Mechanical view of Nature. On the other hand, there seems all the more necessity for an attempt to show the innocuousness of this view, which where it forces us to sacrifice opinions that seem to be a part of our very selves, yet by what it gives back, makes it possible for us to regain the satisfaction we had lost.

And the more I myself have laboured to prepare the way for acceptance of the mechanical view of Nature in the region of organic life—in which region this view seemed to advance more timidly than the nature of the thing required—the more

do I now feel impelled to bring into prominence the other aspect which was equally near to my heart during all those endeavours. I can hardly hope that the result of this attempt will meet with a very favourable reception, for the amount of acquiescence that happened to fall to the lot of my earlier representations was probably due for the most part to the ease with which any mediating view may be interpreted so as to seem favourable to either of the one-sided extreme views which it was designed to avoid. But all the same it is in such mediation alone that the true source of the life of science is to be found; not indeed in admitting now a fragment of the one view and now a fragment of the other, but in showing how *absolutely universal is the extent* and at the same time how *completely subordinate the significance, of the mission which mechanism has to fulfil in the structure of the world.*

It is not the comprehensive cosmos of the whole great universe that we shall here attempt to describe—in imitation of the example set before us as Germans—even in that circumscribed sense of the task which we have above indicated. The more deeply the features of that great world-picture impress the general consciousness, the more vividly will they point us back to ourselves, and stir up anew the question—What significance have man, and human life with its constant phenomena, and the changing course of history, in the great whole of Nature, to the steady influence of which the results of modern science have made us feel more than ever in subjection? In seeking to bring together the reflections on these points which press themselves upon the thoughtful soul, not only within the limits of any philosophic school but everywhere in life, we—with the changed points of view to which the present age has attained—attempt here a repetition of the undertaking of which we have so brilliant an example in Herder's *Ideen zur Geschichte der Menschheit*

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[1] I have followed the Clarendon Press Translation of Lotze in writing this throughout with a capital to distinguish it from *idea* = *Vorstellung*.

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# BOOK V.

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# BOOK I.

## THE BODY.

# CHAPTER I.

## CONFLICTING VIEWS OF NATURE.

Mythology and Common Reality—Personal Spirits in Nature, and the Realm of Things—The World-Soul and Animating Impulses—Forces and their Universal Laws—Relation of Man to Nature

§ 1. THERE are times when our thoughts turn regretfully back to the primitive age of our race. Then, in mankind's fair youth,—so our musings run,—mutual understanding brought Nature nigh to Mind, so that of her own accord she unveiled her inner kindred life, which now she guards from the intrusion of our scrutiny. Our weary glance, as it strays over the outside of phænomena, meets nothing else than the whirl of impersonal substances, the blind conflict of unconscious forces, the drear necessity of inevitable predetermination. Whereas we figure the youthful human race, with clearer eye piercing directly to the depths and knowing nothing of this painful experience. Then with a sense of kinship the mind apprehended the eternal self-conscious Ideas that are the living essence of things, it understood because it felt as its own the stirrings of desire that form the motives of their working. The orderly connection of things must have stood before the world's youth—at least so runs our thought—as something more than a fact of inexplicable origin, for it found reflected within the creative purpose from whose blissful unity Nature, unshackled by restraints from without, evolves the multitude of its phænomena.

I will not stop to inquire into the justice of this charge against the present, but go on to show that the human conception of the universe has at no time been exclusively governed by the idea of such a universal vitality of Nature as is extolled in these passionate expressions. It is true that all that activity which fills our own soul, the diversified train of thought, the secret play of feeling, the living force of effort, whose spontaneous freedom seems our noblest endowment,—that each individual in childhood, and Thought when it was young, believed it could recognise all this under apparently the most unlike forms of the outer world. Yet it is only the child whom the narrow sphere and imperfect cohesion of his experience permits for a while to enjoy this illusion. The youth of the human race, on the other hand, embraced the old age of many individuals; it must therefore at an early period have been in possession of the rich variety of experience that fills a whole human life, and along with it of a degree of intelligent insight sufficient to make the thought of a boundlessly animated Nature but as it were a holiday-dream, which on the working morrow will be dispelled

For only in idle contemplation could men undisturbed cling to the idea of a vitality pervading the whole realm of Nature with a free voluntary activity. Active life, on the other hand, must, for the satisfaction of its needs and for all the ends of its working, be able to build on a certain constancy and trustworthiness in events, and on a necessity in their connection that admits of being calculated on beforehand. The ordinary occurrences of everyday life are enough to convince us of the reality of this trustworthiness in things, independent of arbitrary will, and it cannot have been long ere through them the human mind became accustomed to look on this earthly scene of human activity as a realm of things to be used, in which the play of forces depends entirely on the lifeless regularity of universal laws. Through the commonest occurrences of life men could not fail to become acquainted with the effects of

gravity; the rudest attempt to build a shelter called forth ideas of the equilibrium of bodies, of the distribution of pressure, of the advantages of the lever, experiences these which, as a matter of fact, we find the least civilised peoples turning to manifold account. Primitive hunters, when using bow and arrows, had to calculate on the propelling force of the tightened string; nay, they must tacitly have relied on the regularity with which, under varying conditions, that property increases and diminishes. Even the yet simpler dexterity of bringing down game by means of a hurled stone would never have been attained, had there not dwelt, as it were in the flesh and blood of the arm, the intuitive conviction that the direction and velocity of the flight of the thrown body would be wholly determined by sensible differences in the kind and degree of our exertion.

By no mythology have these phænomena, and the connection in virtue of universal laws which they reveal, been deliberately made part of its representation of the cosmos. And yet all these things — weight, equilibrium of bodies, impact and communication of movement—lay daily before the eyes of all; and it is through nothing else than the deliberate employment of these that man establishes around him that artificial course of things, that second world of art and comfort, to which, as civilisation advances, his life comes to be far more closely related than to the original untutored force and beauty of creation. But, though these facts lie too close at hand to allow of their having been overlooked, it yet is not surprising that the mythological imagination should have wholly set aside the thoughts which they could not fail to awaken. For it is not the negro alone whom we see alternately belabour and worship his fetish: our own civilisation sometimes repeats this absurdity, though perhaps with better grace. Only too readily do the most diverse conceptions dwell peaceably side by side in the same human soul, without their antagonism being so distinctly realized that the need of reconciliation is felt. Hence it was quite possible for the poetic

imagination with far-reaching glance to overlook what lay at its feet, and to sketch the dazzling image of a vitally animated Nature, while practical life for its own ends continued simply to take for granted and make use of the lifelessness of common things. With the blindness of him who will not see, the mythological conception of Nature early turned away from all those phænomena which are either artificially produced by ourselves, or obviously regulated in their manifestation by external determining causes. It confined its poetic interpretation to such processes as either by their unchanging regularity—as the motion of the heavenly bodies, the succession of the seasons, and the cycle of vegetable life—or by an absence of order that defies calculation, like the capricious variations of the atmosphere, are wholly beyond the modifying influences of our volition. The imagination of those generations, plunging into these extracts from selected parts of Nature, was disturbed in its idealizing activity by no remembrance of the everyday reality, that nevertheless lay before its eyes as palpable evidence for blind necessity in the connection of things. We cannot help here noticing in particular, what we might have expected in general, that even this distinction between a superior and a common Nature could not be thoroughly carried out; that even on the narrower field chosen by it, mythology by no means succeeded in wholly idealizing the external world of sense; that even here it could at most push back and hide the obscure and stubborn core of reality and of blind connection which it tried to avoid, without being able to explain or even to do without it.

For, first of all, in any other form than that of human life, and the animal existence to which it is akin, mental activity does not so obviously appeal to our powers of perception as to beget full unquestioning belief. The Teutonic tribes might indeed pay homage, as to a living being, to the sprouting corn-blade coming up out of the ground; yet the mythic expression of this pretty fancy was hardly other than an image tacitly distinguished from that which it represented. The Greek cannot have really looked on

Demeter as herself the budding green, the soul of the corn; she remained the goddess in human form, exerting her shielding and quickening influence on behalf of a germ, which after all held its power of development hidden within the recesses of its own being. Every step by which agriculture advanced must have thrown fresh light on the conditions favourable to that development, till the reverence of the faithful came to have nothing left for which to thank the goddess other than the first inexplicable creation of the germ, which, once in existence, was brought to perfection by the revolving course of Nature. Though in poetic phraseology it was the river-god himself who flowed, yet evidently the imagination falls back on the conception of him in human shape, as a ruling personality, to whom the watery element does indeed inseparably belong, yet who always remains something foreign and different. The thunderbolt is but a weapon in the hand of Jupiter; the winds are held in check, and sent forth by their celestial rulers: everywhere the elemental world falls back into its old relation of contrast to the realm of spirits, and, never awaking to mental life of its own, remains a substance capable of being moulded at their bidding. There may have been a poetic conception of Nature, that, as the poet sings, heard from among the reeds the plaintive notes of Syrinx, or detected in the stone the silence of Tantalus' daughter; but these and countless similar myths convince us after all only that mythology failed to get to the heart of Nature and to endow her with a soul of her own. For the only way in which it could animate stones and reeds was to conceive of both as transformed *human* life, and to leave it to fancy to connect the remembrance of that former intelligible existence with the stubborn unintelligibility of the form into which it had passed.

In a charming poem by Ruckert, the illusory glory of autumn colours, in which each leaf seems to be turned into a blossom, is contrasted with the genuine vivifying energy of spring, that amid all its blossoming never conceals the full dark green growth beneath. It was on this autumnal show

that mythology, for the second time, made shipwreck; as it had been unable to spiritualize matter, so also it failed to lend to events the higher bloom of freedom: the dark, irrepressible growth of an original inevitable necessity again came to the front. It was of no avail that mythology shunned the sight of it, and attended exclusively to the splendour of the world of gods, and to its dominion over the realm of matter. For even here, in order that this dominion should be possible, it had to acknowledge a circle of eternal and universal laws, in harmony with which alone any will can obtain power over the states of things. The adoration of an inscrutable fate, holding even the gods in its bonds, was the expression of this thought in its relation to the course of the moral world; less explicitly, but yet intelligibly enough, it is repeated in every representation of the mutual intercourse between divine beings and the elements of Nature. Helios might in tranquil majesty guide the golden car, where now the inanimate globe of fire revolves; but the wheel of that divine car turned, and its axle exerted and received pressure, according to no other laws than those by which on earth at all times the wheels of every vehicle will turn round their loaded axle. Poetry could, at most, relieve the gods of the laborious setting of their hands to work,—it could never wholly dispense with the idea of a universal order, according to whose laws alone the living will imparts motion to the world of matter. While Zeus hurls the thunderbolt only by the force of his hands, the knitting of his eyebrows, does, without effort, stir Olympus to its depths; yet this second impressive image of godlike might only repeats more obscurely the same process of mediate efficiency expressed with lucid explicitness by the first. Even in the Mosaic history of the creation, sublimer than any other, because it represents as forthwith existing what the Deity willed to be, without weakening the impression of omnipotence by any mention of intervening physical agencies,—even here the silent thought is still not deemed to be sufficient for the beginning of creation. God

is made at least to utter the word,—a very slight yet all the same a distinct condition, which, it seemed, had to be fulfilled in order that, through its operation, the eternal necessity of things might bring to pass the rise of existence at the word of command.

Thus then mythology really comes far short of what it seemed to promise; and the discord in the beginnings of things which it sought to reconcile, it scarcely succeeded in concealing. It could not animate the world of things, it could only conjure up beside it a second world, those godlike forms that, hovering around or above the dark core of things, within themselves exalt every accident of the blind course of Nature into consciousness and enjoyment; but they are not the Real of which they partake. As little could it banish the fundamental rights of reality, the regulated necessity in the connection of things; it did nothing more than dream of the blissful freedom of a celestial life, that stands out in bright relief against that dark background; yet only in that background does this life at every step find firm soil beneath its tread.

§ 2. The renewal of the unsuccessful attempt was left for another line of thought. Were it our purpose to state historically the course of these shiftings of view, we should not of course speak thus. For the fact is, that the thought of a universal life of Nature seems to have arisen much earlier and to have been followed out into the most heterogeneous forms of existence; not till later did the fancy retreat from these upon a narrower range of individual forms, whose ideal beauty remained intelligible, long after all remembrance of their original significance had passed away. But while, like a dream that is past, the mythological view of things is retreating before us to a greater distance, on the contrary that other conception, of which we are now about in the second place to speak, as it was perhaps the earliest blossom of the spirit of inquiry, so has remained alive through all time, and prevails hardly less in the present than it did in the past.

That increasing experience had destroyed belief in the visible forms of gods seemed to be no loss, since it had never made them visible. For to the new mode of thought it was no longer necessary to behold the animating intelligences of Nature as distinct beings beside the forms of dead matter; it rather sought to unite what mythology was always seeing fall within its hands into two separate worlds; as directly endowed with life, the body of natural forms was now to carry within itself the animating principle of its development. But when with this view the attempt was made to track living activity beyond the confines of organized existence into the most formless constituents of the external world, the archetype of human psychic life could not, any more than the outline of the human figure, prove sufficient for the delineation of the animation sought. For but few of the products of Nature present themselves to such a degree as isolated wholes, that it is easy to assign them as abodes to personal spirits. And even though we may ascribe to other things the capacity of receiving impressions and being affected by them, yet the absence of that system of organs on which, in our experience the possibility of sense-perceptions, the combination of these into an orderly view of things, and the reaction of will depends, prevents us from discerning in them any form of mental life such as shall allow them to develop self-consciousness in the same way as we do. Finally, the further we advance in the process of resolving composite forms into simple elements, the more do we lose sight of seemingly incalculable freedom of action; the more distinctly is each type of Nature seen to be limited to a uniform mode of operation that under like conditions is always alike, to present no signs of internal development, and to be destitute of that power of collecting and elaborating impressions which gives to every soul in the course of its life an idiosyncrasy that defies comparison. Guided by such observations, the new conception which we are contrasting with the mythological view of things, speaks no longer of animating principles which impel things, but of

impulses that animate them.[1] And yet with the new direction of thought, which I have tried briefly to indicate by this contrast, we seem to lose more than we are at first in a position to gain.

For above all, the full, conscious, mental life, of which we have experience in ourselves, is alone to us thoroughly intelligible. If we have to give up its universal presence in Nature, the opposite thought of a wholly blind necessity of working may also be intelligible to us,—in so far at least as we no longer profess to throw ourselves into this complete antithesis of our own nature. But just on this account this idea can only suffice for us so long as we are content with calculating natural events and with controlling them for the satisfaction of our wants; to the perpetual craving for insight into the heart of things it yields no satisfaction. Hence, in order to escape from this threatened absence of personality in all things, we create the notion of Impulse; for by that term we seek to express not only that no external force with arbitrary necessity compels things to produce their effects, but that this compelling power cannot merely be in their own nature, it must be known by them *as* their own, be by them known, possessed, willed, and perpetually produced anew within,—or however else we may describe the desire to take impulse as the peculiar living nature of things, as their selfhood. The clear sun of Personal Consciousness, that shone in the forms of the mythic world, has been therefore replaced at least by the moonlight of an Unconscious Reason in things, in order that what they do should not merely seem to spring from them, but in some manner should further exist for themselves and be recognised by them as their own life and action.

The many circumlocutions and figurative expressions which have been required, and which will always be required, in order to bring home what we are here in search of, show clearly how between the two extremes of the belief in Personal

[1] ["Spricht nicht mehr von Seelen welche die Dinge treiben sondern von Trieben welche sie beseelen."]

Spirits in Nature and the notion of a blind necessity of working, this idea of an Unconscious Reason stands as an exceedingly indistinct *via media*. Yet, as the human mind is wont under the guidance of a decided preference to return once and again—and that in the most diverse ways—to this idea, it must meet a deep-seated mental need. And in fact, when we seek to account for this, we find even in our ordinary moods many traces of a tendency to prefer a somewhat dim murky twilight to the broad light of intelligent life, and to efface the boundary between conscious action and unconscious operation.

Not that we do not prize, as the two essential attributes by which mind is distinguished from things, the deliberate thought by which our mental states are bound together, and the volition which ascribes to itself their determination. But the noblest part of mental life does not always seem to us to lie in these, not every spoken word is to be regarded as the result of a train of thought which we can retrace; we rather rejoice in the spontaneousness with which from unconscious depths the expression of the soul's life wells up inexplicable and yet intelligible. We admire the lucid cogency with which an unbroken chain of inferences leads from the starting-point of an investigation to its conclusion; yet often we prize more highly that other kind of consistent sequence in virtue of which in works of art thought grows out of thought, without our being able to make a demonstration of the connecting links, whose connecting efficacy we yet feel. Similarly we can only look on ourselves as creatures with a will of our own when, sitting in judgment on ourselves, we lay to our own account the moral excellence or worthlessness of a particular action. Yet at the same time we regard it as the problem which education has to solve, that not merely the trifling movements to which the incidents of everyday life give rise, but further our whole moral conduct should appear as the involuntary expression of a noble nature, free from the melancholy seriousness of deliberate purpose, and therefore free from any thought of being able to be different.

Even mythology, when it explained the phænomena of Nature from intelligent motives, did not think differently as to this. Not every sunrise is preceded by a renewed resolve of the god; the original volition having as it were become faint at the distance to which it has retreated, continues to work with the unconscious power of a graceful habit. Nature manifests herself as Nature just because she seems to act under the influence of motives, of which she has ceased to be conscious, and of whose power she is now but dreamily aware, as something persisting involuntarily. And in this twilight condition we love to merge even our own existence,—however highly we may prize distinctness of thought and freedom of will, far from denying the presence even in ourselves of a Nature that works unconsciously and involuntarily, we rather dwell with partiality on its constant quiet activity.

As yet we have hardly made clear the reasons that confirm us in this tendency, and I cannot hope to treat them exhaustively here. But first of all it appears to me as if we were sometimes overpowered by the feeling how much all investigation and demonstration, all pondering and resolution, belong to the laborious processes of that life which is still engaged in the toilsome search after a distant *summum bonum*. Then we faintly feel the fascination that in so many enthusiastic souls has begotten longing after the absorption of their personal life in the all-embracing ocean of a universal spirit. That self-absorbed contemplation before which the loosened ties of a methodical train of thought are dissolved, and ego and non-ego—their limits effaced—blend in dreamy identity, that vegetative existence which has given up all volition and all effort after the distant,—these seem to us, in the undiscriminated vague emotion with which they fill us, to possess as something actually present that veritable highest good towards whose far-off reflection tends the unresting labour of our thoughts and our will. We prefer the tranquillity of this finite fulfilment to the infinite restlessness of longing. But perhaps we are no less fascinated by the vista into something infinite which opens up before us as

soon as we come to perceive a Nature working within us unconsciously. In fact, a pleasure from mingled self-complacency and humility seems to lie for us in the conviction that within ourselves lurks a world, whose form we but imperfectly apprehend, and whose working—when in particular phases it comes under our observation—surprises us with foreshadowings of unknown depths in our own being. Any one who could see quite through himself would seem to us to have come to an end of himself; he alone who is gradually discovering himself is entitled to take an interest in his own existence. Hence we would not be without this dark core of our being, so assuredly do we count it as part of our own personality, thus expanded for us to the dimensions of a world in which we ourselves have still discoveries to make, and so clearly do we recognise it as something in us, yet not we ourselves. Then we retreat in confusion before this mysterious recess of our being, thinking we behold in it that Infinite which is the eternal foundation of all finite phænomena.

I add but cursorily one last consideration. As in ourselves we love to obscure the boundary between consciousness and unconsciousness, so also we are not wont to set our inner nature itself in sharp contrast to its bodily external form. Hardly ever, save when the idea of death awakens thoughts of a remote future, do we think of regarding the body as but a covering to be rent asunder, which the spirit occupies without blending with it. This view is little familiar to simple minds, and, even when we grasp it by reflection, we yet fail to raise it from the condition of a derived conviction into the clearness of an immediate vital feeling. We never can think of our hands and feet, of the surface of our bodies that feels pressure, except as a part of our very self—in no wise as an adjacent tract of the outer world which has been brought under the dominion of the soul only more completely than further outlying parts of the same. The mind invariably resists the giving up of that close union of soul and body, the feeling of which comes to us all, as a pleasing illusion, from

the knitting together of our organization. The spirit seems to fulfil its destiny only when, instead of moving a foreign body from without, it takes its place within it as the spring of action; only then does the existence even of matter seem fully justified, when it not only confronts spirit as something to be used, but is inwardly penetrated by its glow. Here it is the artistic impulse, the æsthetic craving, that grows strong within us. As in all beauty we seek a mysterious blending of the ideal essence with the real form, so of science also we above all require recognition of the animated form in that charm of wholeness with which it floats before us in life as the visible fulfilment of our longing after unity, and we will rather admire it as an uncomprehended reality than suffer the understanding to dissolve it.

From these and other similar causes springs indeed the power of attraction ever exerted over us by the idea of an unconscious reason pervading all Nature; I have purposely spoken of those alone which give the conception in question its fascination for every human mind, passing over the arguments by which philosophical speculators seek to commend them within the sphere of the schools, though they cannot bring them home to living feeling. At the same time, I suspect that even such recommendations would not remove the reproach of indistinctness to be brought against the fundamental thought of this conception. For, in appealing to actual experience of unconscious mental operations in ourselves, not only do we appeal to that within us which most stands in need of explanation, but investigation would after a few steps show that all those states on which we were laying stress—in so far at least as they were connected with enjoyment—were cases belonging to a margin, and to be approached *only* by a personal and individual life of intelligence with the organs of *its* nature; with this condition left out, they become inexplicable instead of more easy to explain.

But this view is at a disadvantage as compared with the belief in personal spirits in Nature not only from the indistinctness of its principle, for it is further open to the charge

that even under the application of this principle we do not readily regain an advantage which the mythological view of things certainly afforded. For the lively ever-recurring satisfaction with which we follow the latter in its interpretations of Nature, arises in great part from the fact that it traces back phænomena to motives whose cogency is directly intelligible to feeling. If day by day Helios drives the sun-car across the heavens, it is not because he is urged by the blind natural necessity of an inexplicable instinct, but "that he may give light to the immortals" and contribute his share to the blissful order of the celestial world, that he daily repeats the monotonous task. And how frequently elsewhere in the legends of widely differing peoples are the movements of the heavenly bodies, their mutual attractions and repulsions, represented as the consequences of deeds and destinies whence spring everywhere poetic motives of love, duty, longing, and remembrance to keep the monotonous round going on! Thus Nature in fact becomes the reflection of a world of thought; the external displays of force have no greater significance than belongs to the gestures of living beings; they exist not for their own sake, but in order to point back to an essence which is expressed without being exhausted in them. If we give up the belief in personal spirits of Nature, this support, offered by a spirit-world to Nature, is in the first place only weakened. Even should the outward deportment of things now spring from a dream-like internal impulse, yet no analogy leads us to form any notion of a wider background of their psychic life, whence that dreamy impulse and the individual activity excited by it could proceed, as one among a plurality of manifestations. A single impulse, immediately directed towards a single kind of operation, has become the whole essence of things, their one and all, and they appear forced to make the outward signs of activity, without any inner experience of a higher kind by expressing which these would be alone justifiable. In like manner as it explains the turning of flowers towards the sun, mythology would have

traced back the mutual attraction of bodies to a conscious longing, and explained that longing itself from the past course of destiny. Movement in space would thus have been to it the momentary expression of a manifold mental life, into which in its manifoldness we could still enter, which in the fulness of its import reaches far beyond this single expression, and on that very account can truly explain it from itself. To us, on the other hand, an impulse of attraction that we suppose to lie in the nature of matter repeats properly but the uncomprehended fact of movement, adding thereto, instead of the explanatory motive, merely the thought of an equally incomprehensible necessity by which things are compelled to execute it. In fact, in this light the processes of Nature appear to us only as the silent gesticulations of forms whose images we discern on the horizon, while their voices are lost in the distance.

But this was not the whole meaning of this view of things, at all times therefore we find it striving, by a wider development of its thoughts, to counteract this lowering of the conception of Nature. Above all, it carried back the divided multiplicity of phænomena to an all-embracing Cause, to an Infinite Reason. In the centre of this dreaming and creating World-soul it placed an original Impelling Cause of deep import which, assuming an inexhaustible variety of shapes, gives rise to this actual frame of things. Attaining in individuals to full self-consciousness, the action of this perpetual force is guided throughout by the same motives, even in forms where it but dreamily and unconsciously stirs, and each single product of Nature expresses in visible corporeality one of those thoughts by which the living essence of the Highest is interpreted. These thoughts, springing from the same original source, and therein combining to form the whole of an inexhaustible Idea, establish between the things whose moving-springs they are, an intimate connection of meaning and of community of nature. And in this community of their ground and aim, of which they perhaps retain some obscure remem-

brance, things get back again that deeper support of their being which we missed. The utterances in which the individual, yielding to the necessity of its impulse, indulges, are no longer made for their own sake; they are the contribution which each in its place is bound to make to the realization of the universal cosmic meaning. And if the creatures pass in changeful development through a series of states, or in various fashions react on external forces, they are not even here under the compulsion of an unconnected multitude of separate impulses from without. On the contrary, from the unity of the Idea which is their animating principle, arise as with poetic necessity all the manifold varieties of existence and of deportment to be observed in them. Thus each individual is a living self-contained unity, and yet at the same time each has, in the mighty entirety of things, the explaining background of the particular dream by which it is moved.

On account of the truth which it unquestionably contains, this conception will never cease to produce its impression on the human mind, yet manifold difficulties start up as soon as it seriously sets about the interpretation of phænomena. No one has yet found an expression for that infinitely high essence of the world-soul whose individual emanations the productions of Nature are; no one has yet found an expression to satisfy our raised expectations, or make up to us for the congenial life with which mythology had filled Nature. For all those efforts after growth and development, after plurality in unity and unity in plurality, after contrariety and the conciliation of opposites, by which men have tried to render intelligible the essence of the world-soul, must to the unbiassed judgment appear but miserable tasks, scarce worthy even of the sportive activity of childhood, far less fitted to express the serious creative tendencies of the cause of the world. Did such efforts exhaust the fulness of its content, we could not deny that any single moment taken at random out of the life of a human spirit has infinitely more soul than the depths of the world-soul.

Nevertheless the shortcomings of our attempts to fathom these depths would not disprove the truth of the view itself; even should the Highest continue to float before us but as an unutterable idea, we might yet, by holding fast this idea, at least gain the advantage of securing a living conception of Nature. But the same reproach which we had to bring against mythology, lies at the door of this view and its results. For it too, expressly as it promises to embrace the whole of Nature, has yet hitherto in all its performances really had in view only those selected main outlines of the course of Nature to which the mythological imagination confined itself; like that, it overlooks the treasures of the trivial commonplace actual world that — less poetic, but all the more inevitable — spreads around us. In the mobility of the animal body, in the growth of plants, nay, in the crystalline forms of solid matter and the revolution of the heavenly bodies, in short, wherever the isolated effects of the elements have already coalesced into a permanent, self-maintaining form of existence and of motion, there we can easily find the reflection of Ideas which we assume in the essence of the world-soul as the type of its working. But the achievements of the lever and the screw, the laws of equilibrium and of impact, the effects of pressure and of tension, all these have ever seemed to lie far apart from the progressive manifestation of the world-soul, and have for the most part remained wholly outside the speculations of those who have philosophized about it. The open-air landscape beauty of creation may foster the tendency to this lofty view of Nature; the homely activity of the workshop, teaching us not to admire what lies before us finished, but to consider the possibility of its coming to pass, necessarily leads to other thoughts; by it the doctrine of creative animating natural impulses is inevitably forced to give place to a *third* view,—the last which forms a chapter in the history of human thought.

§ 3. We are now daily surrounded by a multitude of artificial contrivances, far more varied than those of earlier times, in which, by means of a complicated series of movements, lifeless

materials successfully imitate the activity of living organisms. Our eyes cannot rest repeatedly and continuously on this remarkable borderland of self-acting instruments, which derive their material from Nature but the form of their operation from human volition, without our whole mode of conceiving Nature being affected by these observations. In the materials of which it is constructed there was no internal predisposition to the formation of the machine which moves before us; no inherent vital end brought about its present mode of connection, no animating impulse inspired the rhythm of its movements. We know in fact that not from within, by a spontaneous effort at development, but under extraneous compulsion have the combined bodies acquired this admirable play of mutually adjusted states. Far simpler properties and effects belonged in themselves to the particular substances which we combined, varying according to universal laws with the alteration of definite conditions. These invisible forces our mechanical skill has compelled (by the cunning combinations into which it has beguiled that which holds them) to work, under such conditions that their conformity to universal laws must, without any purpose of their own, realize the ends that are our purposes. If this be so, then the elements of Nature suffer themselves to be applied and adjusted by our hands to the most remarkable performances, to which they were impelled by no innate tendency craving for expression, and why should it be otherwise with Nature herself? Perhaps, too, the forms of her creatures—full of significance as they are—spring up but from without, as part of the world's course, which combines the elements sometimes in one way, sometimes in another, and in each of these groups inexorably initiates the system of movements and operations that, according to general laws, corresponds to the actual mode of their connection. Thus all organisms would be made what they are by the concurrence of many external conditions, and would just as little possess an inner vital spring of action as the products of our hands, of whose want of personality we are convinced.

The more widely and effectively the practical dominion of human skill extends over Nature, the more confidently do we find this inference drawn. And results seem to confirm this confidence even where we are not constructing anything new out of serviceable materials, but merely seeking to modify what Nature offers of her own accord. By combining substances presented to us by the earth, the hand of the chemist has produced countless others, which never existed until they had been created by art, and many of which by their permanence and strength, by the brilliancy of their sensible properties, by the variety of their modes of action, vie with the most remarkable of those offered to us by Nature as her own products. From having been subjected to artificial fertilization and lengthened careful nurture, plants have developed a heightened beauty of blossom and of fruit, and our gardens are filled with a flora such as, in the form in which it delights us, has no natural *habitat*. Animals show even in their shape the modifying and improving effect of domestication; hardly anywhere do we meet with the original features of Nature, in all its departments the deliberate interference of man has succeeded in making alterations full of importance. The impression produced by these observations necessarily strengthens the conjecture that Nature brings forth her products not through animating impulses from within, to which we have nothing parallel to show, but through the composition of the same separate forces, by whose application we succeed in transforming her creatures.

A further consideration would seem to make this conjecture a certainty. If each single natural product depended entirely on itself, and were developed out of itself without needing an external world or being accessible to its encroachments, then we might conceive of each as resting on a single animating Idea peculiar to itself, by which should be determined, with provident sagacious consistency, every detail of its future development. It was thus that the view which believed in the animating impulses of things, loved to conceive of Nature; it thought of the actual world as a great picture of still life,

and sought to give to each figure in this picture its own peculiar meaning. What had been overlooked by this mode of thought, came home the more forcibly to the new, which had become accustomed, in practical intercourse with things, to inquire as to the ways in which each product can come into existence. It was to it clear that the actual world is a picture of life in movement, whose separate parts, in constant action and reaction, bring forth, preserve, alter, and destroy one another. But whatever grows and lives, not isolated in a world of its own, but as part of a connected actual whole by which it is influenced, whatever thus has needs and conditions of development, must, in acting and being acted upon, obey the universal laws of a cosmic economy which, extending impartially over all that actually is, can alone afford to the individual the satisfaction of his needs. Every form of mutual action necessarily involves this capacity of being reciprocally affected in the things that mutually act, and presupposes some universally binding system of law, whereby the amount and the form of their reciprocal operations are determined. Now it is no longer possible for the most important single phenomenon to behave as an independent and indivisible unity intelligible only in itself; how it is developed, what it actively performs, and what it passively receives, depends no longer on its own arbitrary fancy, but has from eternity been decided for it from outside; and all its operations, all its states, are assigned to it by the general laws of the world's order and the particular circumstances under which it enters into that order.

Hardly ever has any serious attempt been made to withdraw inorganic Nature from this mechanical mode of conception; a longer resistance was made to bringing organized beings also under it. But the same reasons compel us to admit it here too. Animals and plants produce neither from themselves nor from nothing the substances through whose aggregation their outward form grows; they borrow them from the common storehouse of Nature. In a continuous cycle the soil and the atmosphere supply to the vegetable, and

this again to the animal kingdom, those indestructible elements which serve now one, and now another form of life, then for a time return to the formless condition of unorganized bodies, applicable to everything, but of themselves inclined neither to one nor to another mode of their application. This necessity to draw from the general store and to detach the required elements from already existing combinations, in order to bring them into its own service, sets narrow bounds to the free play of vital force in each several organism. That force, for its part disposed to transgress those laws which hold good for the rest of the world, would perhaps willingly, with prevision of the whole course of its future evolution, direct the development of life from a single impetus and with the unity of a single purpose. But this disposition will not be shared by the materials that are to it indispensable; they will imperatively demand to be directed here by the same laws to which in all other cases they are subject. The plant can never decompose the carbonic acid of the atmosphere unless it counteracts the chemical affinity which holds its constituents together, by another affinity in a definite degree stronger, and carbonic acid only recognises the separating power of such an attraction as is attached to a definite quantum of material mass. And where the acquired material has, within the living body, to be brought into the forms required by the plan of the organization, it will just as little spontaneously accommodate itself to this conformation. On the contrary, like every weight to be moved, it will expect to see its particles pushed into the required position by means of definite amounts of propelling force exerted by definite masses, according to the same universal mechanical laws that likewise regulate the movements of inorganic substances.

Whatever living impulse therefore may animate organisms from within, this does not cause their persistence in spite of assaults from without, and the execution of their predestined functions. Both are at all times due to the forces inherent in their elementary particles, which, coming into contact with the outside world, are capable of receiving stimuli and

responding to them efficiently. And whatever ingenious sequence may bind the life-phænomena of an organism into a systematically developed whole, that too is bestowed on it both by the original arrangement of its parts, from which the total result of the single operations receives a definite form, as well as by the progressive alteration which these parts make for themselves in the course of their activity.

So long as the investigation of Nature started from the unity of the living impulse, and sought in it a sufficient source of explanation for the changeful development of an organism, it had little success in the interpretation of phænomena. It took the most decided step in advance when it began to take note of the activity of the smallest parts, and, at various points combining the single operations, to trace back the whole to the united efforts of countless constituents. It still for a time allowed something internal, the one vital force of every organism, to remain an object of traditional belief and veneration, and theoretically granted that the Idea of the whole precedes the efficiency of the parts long after it had practically decided to seek really fruitful explanation only in the common working of the parts. This last aversion the present has overcome, and, tired of reverencing an essence that never expressed itself in action, it has extended the clear and definite mode of conception of *mechanical* physical science over the whole domain of Nature, as much to the advantage of inquiry as undeniably to the disquieting of the mind.

In place of the vital impulse, animating as with a breath the composite and variously formed whole, it put the simple and indestructible forces which perpetually inhere in the elements. The impulse had been regarded as developing with changeful energy now one, now another mode of operation, here holding its power in reserve, there hurrying and striving to express itself; equalizing and supplying what was deficient, it was bound not by an immutable rule of action, but solely by regard to the end towards which all the details of the development were to converge Force, on the other hand,

inheres in the elements of the body with an unvarying, ever-identical mode of operation, at each moment of necessity performing all that, according to general laws, present circumstances dictate, and capable neither of deducting anything from their possible effect, nor of supplying what the unfavourable character of circumstances denies. Not guided by any aim in view, but driven forward by the pressure of the course of Nature behind, it does not of itself work towards the realization of a plan, but each connected chain of diverse effects depends on the peculiar conditions under which a number of elements are compelled by the actual form of their connection to work together.

While physical science thus divides the unity of the animating power into an indefinite multitude of elemental forces, and believes the final form of the organism to be determined by the manner in which these are combined, it leaves open the question as to the origin of these combinations, which are so happily chosen that what is fairest and most significant in Nature is necessarily evolved as their result. Addressing itself exclusively to the explanation of the conservation of the already existing universe, it may in fact shut out this question from the narrower range of its inquiries. If sometimes inclined to ascribe the origin of this order to a chance for which no special reasons can be found, it is yet just as likely to refer it to the wisdom of a divine spirit. But in any case it is wont to maintain—and in so doing perhaps to go beyond its province—that of the creative freedom of this spirit no breath has passed into the creation, and that Nature once in existence continues to exist, like every product of art, according to those inexorable laws whose immutability testifies alike to the wisdom of the maker and to the complete impersonality of that which has been made.

§ 4. And in this wonderful machine of Nature, by whose ceaseless movement we are everywhere surrounded, what place do we ourselves occupy? We, who once believed we could discern kindred godlike forms behind the veil of phænomena? we, in whom the Universal Reason of the World-soul became

at least dreamily conscious of great ends, and of an eternal Impulse binding us along with Nature into one great universal fabric? With the yearnings of our spirit, with the demands of our moral nature, with the general fervour of our inner life, we feel out of place in this realm of Things to which consciousness is unknown. Yet perhaps this feeling of discord also is but the survival of an error which we must lay aside.

For not alone have our views of Nature in process of time undergone the alterations described,—along with them our self-knowledge has at the same time assumed new forms. Youthful humanity could innocently rejoice in its vivid consciousness, which, like the plant evolved wholly from its own germ and oppressed by no feeling of extraneous compulsion, did not even feel needful the recognition of its own freedom. Growing experience and gradually widening surveys of human existence showed that the development even of mental life was governed by general laws valid for all, and less and less to be attributed to any special desert of the individual. The mind resigned itself with equanimity to this kind of necessity, so long as it saw in it the gently constraining power of the one eternal Idea in which we live and are; a sense of oppression arose when that too had to give place to the divided plurality of determining and moulding forces. How much of that which we had looked on as an essential part of our personality did we find to be the result of influences that cross, confirm, or resist one another within us! Within narrower and narrower proportions shrank that in us which we could call really our own; the bodily organs claimed one part as their contribution, another came under the general forces of psychic life, which by no merit of their own work according to identical laws in all individuals; one small sphere alone, that which is ruled and shaped by the freedom of our moral action, seemed to afford an asylum to our real self. To this last vestige of genuinely inner life science has left but an ambiguous existence, as a possible object of belief: and even this she seems on the point of giving up altogether.

As soon as we know that the general economy of the universe apparently requires yearly a certain average of crime just as much as a certain average of temperature, we can hardly help seeing even in mental life the unbroken sequence of a blind mechanism. Like the outer world in its perpetual revolution, our mental life too must be but a vortex of movements kept going by the incessant action and reaction of the countless atoms of our nervous system. We have advanced far beyond the childlike ingenuousness of mythological conceptions; we have not only given up personal nature-spirits, but made the possibility of any sort of personal existence one of the darkest of problems. Enclosed within the great machine of Nature stands the smaller machine of the human mind, more cunningly framed than any other, inasmuch as it is aware of its own movements, and watches with admiration those of the other toy;—yet some day its parts, too, will fall asunder, and it will be all over with the jest and the earnest, the love and the hatred, by which this strange world was moved!

Even these final conclusions men have not shrunk from drawing, now in an exulting, now in a despairing spirit. At the same time, they have not been universally drawn; at various points on the way thither multitudes have stopped, trying in different directions to escape from the uninviting goal. And all along, through all shiftings of view, one simple faith has yet preserved itself unshaken, the faith in an eternal First Cause, who bestowed on the world of spirits living freedom for the combat on behalf of a sacred aim, and denied it to the world of things, that under a blind necessity was to be a stage and a weapon for the efforts of the combatants. With this clear line of demarcation the mind gained power to establish itself in the circle of things, building on their unvarying conformity to law and on its own freedom. But that left still another platform to be reached from which to answer the many questions as to the respective boundaries of the two contiguous spheres of freedom and necessity, ever and anon raised by attentive observation of the details of the course of Nature.

By such problems we feel ourselves beset,—not as if they had not existed and been felt at all times; but more than ever they have now been brought into the foreground of thought by the growing diffusion of physical science. Too long, no doubt, did the human mind, when forming its view of the universe, overlook that obscure uncompromising element of necessity, the world of things; as experience advanced, this has advanced with increasing power, and vainly should we now strive to conceal the fact that its dominion is firmly established over the world of sense. If, however, we would anew attempt to withdraw from it what we believe we cannot yield without the sacrifice of our own being, we must not begin by disputing what all experience unites in ever afresh confirming. On the contrary we must admit, even for our own bodily life, the complete validity of the principles on which the world of sense is interpreted by the mechanical system of inquiry into Nature. Meanwhile we may, perhaps, clearly distinguish that which in the passion of conflict is, in many quarters, laid down as an unquestionable principle of physical science, from that which science itself—here more tolerant than certain of its votaries—claims to know certainly, and is entitled everywhere and inexorably to require. Perhaps also it will at last appear that mechanism as a whole, far from being antagonistic to the true tasks of mental life, has itself been taken as a necessary working element in the great totality of things of which only partial glimpses of separate sides are afforded to the human mind by the fluctuations of the spirit of the age.

## CHAPTER II.

### NATURE AS MECHANICAL.

Universality of Law—Determination of Effects—Places of Efficient Activity in Nature—Atoms, and the Sense in which they are accepted—Physical Forces—Laws of Effects and of their Composition—General Inferences with respect to the Explanation of Natural Phænomena.

§ 1. SOME necessary connection in things has, in some sense, been sought in every age, and under every mode of thought; it is not this which is distinctive of the mechanical attitude of contemporary science, but the further speculations as to the meaning and origin of this necessity. Even the darkest superstition, thinking by futile magic to determine the destiny of the distant in space, appealed to an incomprehensible connection, according to which the desired effect was to follow its incantations. In a twofold sense the thought of science is different. The several states of things, instead of being supposed to be assigned to them merely in succession, by this incomprehensible necessity, are held to proceed intelligibly one out of another, so that each prior state contains in itself the reason why, by a universal and comprehensible law, the posterior is necessarily required as its consequence. And similarly each actual form of existence is not supposed to evolve state out of state according to a law peculiar to itself, on the contrary, the necessity that is dominant in one organism, owes its compelling power to the same universal laws which in every other also assign like to like and diverse to diverse. Thus the various spheres of contrasted phænomena that make up the universe, do not separately rest on special predispositions, having nothing in common; they are only examples of what the power of universal law establishes, under the different circumstances, which

bring phænomena under its rule in ways varying according to conditions of time and place. It is on this conception of a system of law controlling all nature, whence alone things derive their obligations and their capabilities of working, that the mechanical view of nature has based the extensive superstructure of its doctrines.

But from the phænomena by which alone we are surrounded, we can reach this universal system of law only through inferences that transcend the region of perception. And here the steps that have been taken are not all alike unquestionable. The principles of our knowledge, certain in themselves, are not everywhere sufficient for the attainment of useful results; frequently a happy intuition has had to divine fruitful points of view. The progress of science has not, of course, invariably confirmed the correctness of such conjectures, which when made, excited surprise by the opening up of great prospects; further, it has not always been found practicable to trace back to their special inner necessity even such conjectures as have been abundantly verified by experience. The sceptical inquirer may therefore be beset by many doubts, and the hope of escaping from particular corollaries of the mechanical view of Nature will be secretly derived from the fact of its foundation not being in all points completed. But it would be of small avail to think one could shake the great fabric of this view by hastily collecting together objections suggested by a cursory consideration of many of its particular propositions. Resting, as it does, on a boundless store of consentient facts, it deserves, like a natural phænomenon, to be regarded in the belief that future insight into the connection of its parts will dispel present doubts as to particular points. In fact, like a product of Nature, this view of Nature is itself capable of a full, transforming development. None but one very imperfectly acquainted with its spirit, could look on the principles which it has hitherto applied as a fixed number of possible points of view which cannot be increased. On the contrary, physical science knows very well that the fields, which have as yet been com-

pletely covered by its investigations, are but few compared with the infinite variety of phænomena which Nature daily sets before us. It is aware that the general principles of which it makes use, are partly derived from the particular forms in which operating Nature manifests itself in the few best-known departments, and that as, one after another, new spheres of experience enter the circle of objects of investigation and become more fully known, a more general and comprehensive statement of the prior basis of its reasonings becomes indispensable. In this process of self-development it will rarely have to pull down what it had previously built up; more frequently it will find that laws, whose validity this progress leaves unimpaired, are but special cases of more comprehensive formulæ. Thus true physical science will not show that narrow-minded haste with which men so often try to explain all phænomena on the same pattern as those which chance, or the point temporarily reached by observation, has brought most conspicuously before them. In view of this pliability of science we have to bring into relief the few points which it does hold as necessary and universal, while of the others we must ascertain the degree of probability which alone it claims for them.

§ 2. Now there is one feature, in addition to the conviction of a universal bond of law, that is essentially characteristic of the spirit of the mechanical view of Nature, namely, the unremitting care with which, in regard to every effect with which it deals, it seeks accurately to determine the elements by which this effect is produced. This caution has not always been practised. In earlier times men spoke of effects in general without saying by what they were produced; of operations, without stating whence they proceeded and where they ended. Compound products, in which a multitude of parts might be distinguished, were connected by them in a general way with forces, evolutions, and operations, that seemed to take place within these structures in as indefinite a way as electric discharges in clouds, which one sees flash, without discerning the outline of that from which they proceed. To

its strict avoidance of this fault modern science owes all that it has accomplished. Seeking carefully to define each element from which an effect proceeds, in reference to other elements, and to all the conditions surrounding it when active, it has not only made itself familiar with effects in their general appearances and deportment, but has connected their magnitude, direction, and duration, as well as the influence exerted by them in any given direction, with definite quantitative laws.

In this way science has made its way to a point beyond which, for the most part, the investigation of mental developments has not as yet advanced. Following on weak attempts to interpret the course of history, and all that is important in its events, from the mere volition of individuals, we are glad once more to find nowadays an inclination to derive human social conditions, religious aspirations, and the variable tendencies of art from the unconsciously organic operation of a universal spirit. Nothing is taken away from the brilliant results due to these efforts by the confession that, after all, history is not made without personal intelligences, and that more exact observation will discover in that universal spirit only the uniform tendency impressed on individuals under the influence of universal conditions and by their mutual action and reaction. We need not therefore grant that all fair and significant phænomena in Nature and history were but after-results of the circumstances that as a matter of fact went before; on the contrary, what we meet with as the ideal element in the world of reality, may well have given the first impulse to that definite order of things from which we are continually seeing it arise as a necessary result. But, wherever the subject of our inquiry is, not the worth of that which has come into being, but the possibility of its coming into being and the process of its realization, our search will be necessarily directed towards the single real elements, whose normal action and reaction on one another is the sole instrumentality whereby everything comes into existence. And thus history and physical science will

derive the origin of all new conditions, the persistence of all prior ones, from the mutually exercised influence of many separate individual points, in which exclusively the Idea has become materialized into energetic existence.

Having perforce entered on this line of investigation, science could not but try to discover those first starting-points of all effects, which, absolutely simple and immutable, contribute to form the heterogeneous course of Nature in proportions which are unchanging, and therefore calculable. That which presents itself at first to direct observation as an isolated unity, *e.g.* the moving animal body or the clearly outlined form of the plant, ultimately shows during the course of its life that its existence in time and place and capability of action are dependent on a certain combination of parts, and cease along with that. Unorganized bodies, by their divisibility into homogeneous constituents, or by the manifest occurrence in them of heterogeneous ingredients, still more forcibly suggested that they were composite substances with properties dependent on the nature, the number, and the forces of their component elements. But the attempt to discover these elements soon brought the conviction that the simple and unvarying constituents of things are wholly beyond the reach of sense-perception. For what appears to the senses, in a very small space, as a homogeneous and persistent element, is found to be after all variable during the progress of inquiry, or becomes split up, before the assisted eye, into a world of variety, and once more we see indefinite congeries of particles engaged in building up, by their action and reaction, those minute forms that cheat us with the appearance of a uniform and inwardly motionless existence. Hence it was necessary to take for granted that which perception did not reveal, because going on in a region to it inaccessible, and to seek the final constituents of the physical world in countless atoms, invisible from their minuteness, persistent in their duration, and unchangeable in their properties. These atoms, now coalescing in most manifold fashion, now withdrawing unaltered from these fluctuating combinations, produce by the variety

of their positions and motions the different kinds of natural products and their changeful development.

Microscopic investigation, which so often converts the apparently homogeneous into a cunningly-framed fabric of manifold parts, seems most naturally to foster the tendency to think of the efficient elements of physical nature as distributed among particular points of space, and of the properties of the larger perceptible bodies as dependent on the mode in which these parts are combined. But this thought was elaborated by the ancients long ago under the guidance of considerations that partly still retain undiminished force. Yet by the want of connected observations expressly directed towards this end, they were prevented from giving mathematical precision to this conception, and in their hands it remained rather a general thought about a possible explanation of Nature than a means of elucidating to any considerable degree a definite group of phænomena. While, however, the ancients did not turn to much account the fruitfulness of their principle, in another direction they went much further than the atomists among modern men of science. They believed they had found in atoms the ultimate and inscrutable elements of all reality, and what we now hold to be only the constant element in the course of the created world, they held to be the unconditioned and truly existing, before which nothing was, while, itself preceding all, it is the essentially necessary and independent foundation of every possible creation. Now that a countless multitude of separate and unconnected points should form the commencement of the universe, and that from their aimless movements the complicated whole of phænomena should arise: this theory will always have against it the mind's earnest longing to see Nature developed as a unity from one source and on one plan. But this objection, which has force against the view of the ancients, would be wrongly urged against the atomistic foundations of our physical science, with whose spirit and requirements the resuscitation of that view is not necessarily connected. When we speak of indestructible atoms, varying in form and size, we believe we have,

by a happy conjecture, added to the series of facts which we actually observe a new and pre-eminently suggestive fact, which, however, does not directly fall under our observation. This fact is, that all changes in the course of Nature stop at these smallest particles, and under all alterations of their external relations leave these as unmodified starting-points of unceasing activity. In this fact we believe we have, under the guidance of innumerable indications of experience, happily divined a characteristic trait of Nature. Like other facts, this too may well suggest prior questions as to its meaning and origin. But physical science itself, intent solely on the explanation of what is going on within the world as it exists, has a right to stop at some ultimate fact, such as indicates a universal and irreversible trait of that world in such a manner as to shed light on the meaning of phænomena. Thus atoms, unaltered and undivided, not on account of any absolute indestructibility on their part, but because the actual course of Nature yields no opportunities for their dissolution, form immoveably fixed points for the construction of phænomena. On whatever higher conditions their own existence may depend, these conditions we may leave undetermined when seeking to interpret Nature as actually existing, because they are invariably fulfilled, are never lost, and therefore never need to be re-established.

What further conceptions we have to form in regard to the nature of atoms, can be decided only by means of those indications of experience which compel us to admit them, and here much remains in store for the future. It is natural to naive reflection to account for the various properties of the visible world by the various natures of the smallest elements; science, on the other hand, is naturally desirous of reducing the divergent variety of phænomena to the smallest possible number of originally differing principles. In fact, experience very soon teaches that many distinctions in things that at first seem essential, are the result only of varieties in the size and combination of constituents in themselves homogeneous. Yet the persistence with which many natural products retain their

characteristically distinctive attributes under much variation in their conditions, would seem to increase the difficulty of explaining all the different forms of bodies and their varieties in deportment exclusively from the different modes in which absolutely similar and homogeneous atoms are connected. Besides, no higher point of view requires this similarity of atoms; for what constitutes the unity of the cosmic whole is not that all its original elements are similar, but that, while differing, they conform to the requirements of a comprehensive plan.

The atomic theory of the ancients was governed by this idea of the identity of nature of the minutest constituent parts, and, at the same time, differences in them which had to be recognised in order to explain Nature were sought for exclusively in the diversities of form and size proper to the atoms. But perfect identity of substance seemed rather to imply everywhere identity of form and size; thus the belief came to prevail that the atoms themselves are composed of still more minute particles homogeneous and of equal size, and that their forms are determined by the space-relations of these. The atoms were thus not properly simple elements, but indivisible systems of many particles. Nevertheless the atoms, and not their particles, were the elements of the course of Nature. For the combinations of these smallest primitive particles into the larger and more diversely-shaped atoms were looked on as eternal and irreversible facts, having their foundation before the creation of the existing world, and consequently outside the sphere of scientific inquiry. Now that the created world is in existence, all that the action and reaction of the process of Nature that still goes on in it can accomplish, is to break up composite palpable bodies into their atoms; it cannot further analyse these into their primitive constituents.

The acceptance of an inexplicable primary construction is, however, forced on this remarkable mode of thought solely by its hypothesis of perfect homogeneity in the minutest particles. Certainly no other reason could be found why it should not

be possible for some one of the forces arising in the course of Nature to alter the combination of those particles in one atom into the different combination which they hold in a second, for this new combination, seeing it is there realized, cannot in itself be antagonistic to the nature of those particles. It would be different if we were to revive the theory of the ancients so as to hold that the atomic particles are formed not of homogeneous, but on the contrary of essentially heterogeneous primary constituents. Each of these might then be indivisible, because the constituents of each would be held together by an elective affinity such as could be surpassed by no other, and at the same time each would have a definite size and form, because only on condition of a limited number and fixed situation of the parts would their mutual cohesion be strong enough to resist the severance of any one. Such molecules, while by their indestructibility deserving the name of atoms, would consequently not be indeed the ultimate and simplest elements of the material world, but they would be the last to which the changes in Nature carry us, those which in all syntheses and analyses remain the invariable constituent units.

But it is easy to see that at the same time this theory allows us wholly to divert our attention from any extension in space of these primitive parts, and to regard them as immaterial existences that from fixed points of space control by their forces a definite extent without in the strict sense occupying it. The mutual action and reaction of these unextended points would mark out their distances from one another and their relative position, and thus they would describe the outline of an extended figure just as definitely and certainly as if by permanent extension they occupied the space contained within it. If we further conceive of forces of external attraction and repulsion as attached to these individual real points, considerable aggregates of them would by resistance to penetrative force present the appearance of palpable materiality or by reflection of the light waves the aspect of a coloured surface, just as much as if the operating

beings themselves filled the space with permanent extension of their own. There is nothing contrary to physical science (in whose eyes particles are of importance only as centres of radiating force) in attributing this semblance of extended matter to simple immaterial forms of being; the philosophic study of Nature finds itself forced to make an attempt in this direction, seeing that here alone the idea of the simplicity of the really ultimate elements is combined with the equally indispensable diversity in form of the atoms which we must assume as the immediate component parts of matter.

§ 3. Whatever idea, however, we may form to ourselves of the nature of atoms, it will always be the most essential requirement for the explanation of Nature to find general points of view from which the results of their activity may be connected with definite laws. By its distinct comprehension of these foundations of its judgments modern science is widely separated from the atomism of the ancients, which in its efforts to explain phænomena from varying combinations of elements, always silently took for granted the laws of action to which the daily spectacle of physical events has accustomed us, yet without deliberately and expressly stating these principles, and investigating the limits of their validity. And it will be well for us to admit that in this respect even our science also is incomplete, and that, as it derives many of its principles only from dicta of experience, and may consequently with fresh experience receive different lessons, it cannot beforehand hold itself exempt from all modification.

First of all, we are in the dark as to the inner nature of atoms. Still, whatever internal states and efforts we might ascribe to them, these will never suffice to set any single thing in motion apart from its being compelled thereto by its relations to other things. For pure space surrounds each atom uniformly on all sides, and no one point of this homogeneous extension possesses advantages over any other, on account of which the atom at rest should be drawn to leave its place, or the atom in motion to change its direction; no

point suits the nature of the atom better than any other, so that it should hasten to approach or delay to leave it. Hence each atom at rest will remain at rest, so long as external influences do not intervene, and each one in motion will continue its motion with the same direction and velocity, until newly operating causes effect a stoppage or a diversion.

This Law of Persistence—the foundation of our whole theory of motion—nevertheless states a case which as stated never occurs. For motion in reality is never found apart from precisely those external causes that alter its direction and velocity. The individual atom is surrounded not by empty space, but by space occupied at innumerable points by other atoms the same or different in nature. We may assume that among them all, as constituents of the same world, there is a connection of mutual correspondence whence arises a direct action on one another of their internal states. But this internal experience of the atoms is wholly beyond our observation; it does not therefore form the subject of physical science, which deals only with the movements in space which are its external expression and effect. In the case of two unchangeable atoms in empty space this expression of their internal action on one another can only consist in the lessening or increasing of the distance between them. Which of these two results shall in a given case follow, *i.e.* whether the phænomenon of attraction or of repulsion shall arise, depends on the unknown internal relations of the related atoms, and can therefore be ascertained only by experience. Further, it is solely on the concurrent results of experience that we can—as yet at least—base the rule that the operating elements affect one another less powerfully as the interval between them becomes greater, more powerfully as it decreases. At what particular rate, too, the variation follows the changing amount of interval, can be decided in each case simply by the dictate of experience, lastly, it is this alone which informs us with what amount of force two atoms of a given nature will repel or attract one another.

It appears from the foregoing that the capacity or the

necessity to produce a given effect never potentially exists in the nature of a single atom or a single body. As, on the contrary, the necessity of any operation arises simply from the mutual relation of two elements, the decision whether one shall exert attraction or repulsion on another has its source equally in the nature of that other. Further, the amount of the influence exerted by each will be assigned to it partly by this relation to the peculiar nature of its antagonist, and partly by the distance between them, *i.e.* by the circumstances prevailing at the moment. But though in this way the definite operative force does not properly accrue to each atom till the very moment of its action, yet physical science is wont to describe the power as perpetually inherent in the atom. It thereby no doubt occasions misunderstanding on the part of those who do not follow the meaning of this language in its applications. For there is a strong temptation to conceive of the power perpetually inhering in the substance as a new and unsubstantial substance, as a property, yet a hidden property, as a potential activity, or as an effort devoid alike of a conscious aim, of spontaneous action and of actual exertion. No one would feel the same difficulty, were we to speak of our soul's power to love or to hate. We know that love and hatred do not as such lie *à priori* developed within us, waiting for objects to which they may be directed; but are awakened to a definite degree at the moment when our personality comes into contact with another, Nevertheless, we let pass the expression, that the power of love and hatred is inherent in our soul; we know we mean by it nothing more than that our permanent mental nature, as it now is, will necessarily develop the one or the other of these manifestations under the influence of certain conditions. With the same licence of speech physical science regards any capacity of operation acquired by a material element in virtue of certain conditions as a power of attraction or repulsion existing *à priori* and complete in the nature of the element. It need not fear to be led into practical errors by this abbreviation; for the notion of force can never be applied without reference in every case

to a different form of the actual condition of things upon which the use of the notion is based. We speak of the atoms so far as they are in operation, not so far as they are inactive; but we can speak of no operation of one atom without mentioning a second by which it is undergone; and we can suppose no attraction or repulsion between these two without at the same time conceiving them as at the initial moment of the operation at a fixed distance the one from the other, and without from this inferring the amount of the force developed according to a law established by experience. It is therefore practically indifferent whether we affirm that the necessity of a given kind and amount of operation arises for each element from the internal relations of the elements to one another at the moment when the influence of the actual circumstances comes into play, or whether we say that of a number of powers slumbering prepared but latent in the atom, that power comes into exercise at each moment which finds in the present circumstances the conditions of its excitation and expression. Science, however, has certainly had reason to prefer the latter form of expression as practically the more convenient.

If the internal states, of which perhaps each atom has experience at the moment of its action, left its nature so altered that it reacted differently to a later stimulus from what it had done to an absolutely identical earlier one, we could not speak of its powers as perpetually inherent. Experience has on the whole showed us no such mutability. A chemical element, after having entered into, and again passed out of, various combinations, now with one, now with another, appears at the end of these vicissitudes with properties nowise differing from those with which it entered into the first of these combinations. Where there is some appearance of the opposite, the explanation of the temporarily altered properties is to be found in the still-continued operation of the events accompanying its last disengagement. Thus, however many and various may have been the states of the atom, it always comes out of these shifting collocations wholly unaltered,—it acquires no new habits, such as

are developed in organized beings,—nor does it betray a trace of memory, through which the past states might come to determine those of the future. Its mode of operation can therefore be determined beforehand, when we know its original nature, and the sum of all the still operant conditions, without its being necessary to take account of the course of the history through which, between two points of time, it has passed. This continual return to the same character, under the same conditions, is strictly that wherein what we call the immutability of material atoms consists. For it would be too much to affirm that their nature never undergoes alterations in its internal states; but these alterations vanish—at least as regards outward relations—with the cessation of their external conditions; and, wherever the latter return into a prior combination, the atom also returns with perfect elasticity to its correspondent state, and once more takes part in the farther play of action as the same force or as the same mass as formerly.

Our knowledge of phænomena is not sufficiently comprehensive to allow of our setting down this unchangeableness as an absolutely universal property of all the elements of Nature. It is just possible that in departments in which investigation is as yet in its infancy, indications may appear of a progressive inner development of atoms. But, as experience has not hitherto made such a supposition necessary, so it is easy in general to be assured, that, at least to a limited extent, the immutability of elements must always hold good. For it is not possible to conceive a structure of Nature, in which the living species shall always retain the same shapes and the same arrangement of their mutual relations, and the course of events present always the same main outlines, if the elements themselves, whence this varied fabric is always produced anew, on their side also undergo constant change. Perhaps all Nature is now actually going through a progressive course of development; yet, on the evidence of all experience, so great is at the same time its constancy that we can only understand all the periods of its existence whose history

we can trace, on the assumption of unchanging elements, that after each revolution of external conditions return to their primitive state of being, and thus afford the original starting-point for the renewal of the same cycle.

§ 4. Now, if this hypothesis supplies the broadest basis for the predetermination of occurring effects, experience has equally confirmed the extensive validity of another, which enables us to estimate the results arising from the joint influence of several conditions on the same simple element. That an atom is already engaged in one movement does not prevent us from supposing it to take on a second; the atom in motion obeys the second impetus, not reluctantly or merely partially, but as fully as if it had no prior movement, and its total velocity is the sum of the separate velocities in one direction communicated to it by these different forces. Now, if we suppose these forces to be exactly like one another, combining them in such amounts as we please, we can arrive at the notion of resultant forces, whose magnitude we then estimate according to the number of simple and like units of force contained in each. From this we can easily draw the inference, that the velocities communicated by different forces to the same element are directly proportional to the magnitudes of these forces. Further, if a force continuously acting repeats at each moment the same shock which it gave in the preceding, the velocity produced will increase in course of time by the constant addition of the later impulses to the prior ones which, by the Law of Persistence, are still operating, and the motion will receive an acceleration such as we see exemplified in the fall of bodies through the constant attraction of the earth. Lastly, if different forces having different velocities and directions, try to move the same element simultaneously, this too will, instead of obeying one and disobeying others, yield to the impulses of all at once. Hence, at the end of a given space of time, the element is by the joint operation of two forces at the same point which it would have reached if, obeying both successively, it had moved first in the direction of the one, and then, during a

second equal time, and from the point attained, had moved in the direction of the other force. If, on the same hypothesis, we seek to find the places of the moving atom at the end of the first, the second, and every succeeding infinitesimal section of that space of time, the line that connects these points will describe the straight or curved course followed by the element under the resultant influence of both forces It ends in a point, and the atom is at rest, when the sums of the forces propelling it in opposite directions are equal.

Finally, if the necessity of mutual action and reaction be granted in the case of two elements, it must equally be granted when one is confronted no longer by one, but by a plurality of elements of the same kind, whether separate or combined into a mass. Here, too, the capability of being acted on is not so easily exhausted that the one element must extend its influence over only a limited number of others, or distribute the amount among these. On the contrary, whatever be the number of its antagonists, the action and reaction between it and each of them takes place precisely as it would do if all the others were absent. From each, therefore, the one element receives, and to each it imparts the velocity corresponding to the mutual action between atoms of such a kind. It thus concentrates in itself this velocity multiplied by the number of like elements contained in the antagonistic mass, to each of which it communicates a single unit of this velocity. If, therefore, we call quantity of motion the product of the velocity into the number of homogeneous moving parts, or into their mass, each one of a mutually acting couple will receive a quantity of motion, therefore a velocity, that increases in proportion as its antagonist is greater and its own mass smaller. This law of the equality of action and reaction, along with the foregoing, gives a determination of the course impressed by unequal masses on one another, in consequence of their common forces, whether they may have been originally at rest or in motion.

All these rules of calculation imply the general assumption that the action and reaction between one element and a

second exerts no influence on the law by which one can simultaneously enter into a similar relation with a third. It is not the mode of operation of the force, but only its result which is altered by its meeting with others acting at the same time; for the result must be of course that the impulses in opposite directions, of different forces, which the same element cannot simultaneously obey, neutralize each other, and that the others give rise to a mean resultant. This assumption is the simplest and best for the determination of effects produced by the joint operation of several conditions; for it permits of the action of each single force being in the first place estimated separately, and without regard to the others, and of the single results obtained being afterwards combined into a final resultant. And it would be natural to be guided by such a fundamental thought, even on the hypothesis that forces differing not merely in amount, but also in nature, met simultaneously in the same atom. Here, too, we should suppose that their crossing did not alter the particular laws by which the element reacts on each one separately, or is acted on by it; only here, too, the result would be the neutralization of the opposite actions which are required at the same time by the different forces from their common object. And yet we cannot actually determine how far this conception holds good. For there is nothing necessary in the supposition of the indifference with which different forces act side by side in the same element without occasioning any mutual disturbance; on the contrary, it may be regarded as the most unlikely of several possible suppositions.

If two persons are bound together by mutual affection, and if each separately enters into equally friendly relations with a third person, the advent of this last will not in all cases leave unchanged the feelings of the two first towards one another; it is just as likely to convert their former friendship into strife; or it may be that persons previously estranged become united in common aversion of the third This example, taken from a totally different sphere, has perhaps no profound analogy with the simple case with which

we are now concerned, but it is a concrete illustration of what we can now express without any simile in abstract terms. If we conceive, as we must, of the mutual action and reaction of things not as attached to them externally, but as either dependent on, or accompanied by, alterations of their internal states, then each element is at the moment of its action radically different from what it was before or will afterwards be. Now it may well be that the law according to which *ex hypothesi* it has passed out of its inactive state into one of mutual action and reaction with a second element, holds good also for it when active; for the alteration of the internal state connected with its action may not necessarily affect those of its attributes on which its subordination under this law depended. And then, on the before-mentioned assumption, each new stage of action will take place just as if no other had preceded it. But certainly it is, on the whole, quite as conceivable that a prior activity alters the internal state of the operant element too essentially to allow of its still reacting upon another element, according to the former law of its efficiency. For, as we have seen, forces are not indestructible peculiarities that without respect to relations inhere perpetually in the nature of an element; they and their laws are but expressions of those necessities of action and reaction which always proceed primarily from the mutual relations of things. If the internal states of things are altered, these relations may change along with them, and thus impulses to new effects of a different character, *i. e.* new forces or new laws thereof, be developed. We may therefore without hesitation hold it to be possible that the very law of work of a simple force may—and that in regular wise—alter with altered states in its subject.

Experience has of course, in the spheres where it has hitherto been possible to form a precise theory, hardly as yet given any indication of the practical importance of this general view; nevertheless we must consider the unchangeableness of laws of action—so far as we find it—simply as one of those facts of experience which are instructive in regard to funda-

mental features of the actual constitution of the universe; we must not look on it as in itself a necessary arrangement, that must occur in every possible system of Nature, or even unrestrictedly in Nature as we find it. Still less are we entitled to transfer it tacitly to the sphere of mental life, as if it could claim, without the special confirmation of experience, to hold good as a universal rule in all cases. Lastly, it is scarcely needful to add that it can come into question only with reference to those simple forces which we invariably attribute to the nature of a single element in its relation to a second. The joint operations of larger groups of elements, on the other hand, are of course dependent on the mode in which these constituents are combined, and no universal rule could be laid down in regard to the changes which such forces may undergo in consequence of the many possible rearrangements of the combined elements. In so complicated a system much may be irrecoverably displaced by impressions from without, and the return of the same external conditions would not restore the same capacity for reaction which was formerly developed under similar conditions. Such degradation of the simple elements, on the other hand, we cannot suppose possible, and even should there be the above-mentioned mutability in their mode of action, we would yet always take for granted that along with each repetition of the same combination of external conditions the same laws of action must also come into play.

Starting from such premises, science has elaborated the explanation of natural processes, by assigning to these processes general principles, by supposing, for situations actually occurring in experience, combinations of circumstances which seem to correspond to them, and calculating the results which existing forces must produce under such circumstances. In this way it has succeeded partly in throwing full light on particular spheres of phænomena, partly (where the great number of concurrent conditions makes the calculation of them difficult) in at least reaching general points of view by which the results to be expected are circumscribed within

fixed limits. Thus from the equality of action and reaction the corollary may easily be drawn that the internal actions of a connected mass may alter its form but not its situation in space, or that under all internal alterations of a system its centre of gravity remains at rest, if it was at rest, or continues a motion in which it was formerly engaged without change of direction and velocity. Every change of place initiated by the forces inherent in a body therefore presupposes action and reaction between it and something external, that supplies a point of support, or of resistance to determine direction. For the study of life, to which we are hastening on, it is unnecessary to enter into the details of physical dynamics; on the other hand, it is desirable to add some further remarks on modes of conceiving them.

In our mental life we find the amount of many activities dependent on time; the strength of our feeling about objects, the clearness of our ideas, the force of our will, all seem, in the absence of fresh stimuli, to diminish in course of time. In the ordinary opinion, therefore, it must be most probable that all effects whatever, consequently also the expression of every force of Nature, are subject to such a gradual relaxation and exhaustion. Hence it was long commonly assumed that communicated motion at last ceases of itself, and the Law of Persistence on the other hand was regarded as a strange discovery of science. Even in mental life it is of course not time itself that wastes the force of the activity, but the many processes constantly crossing each other hinder by their mutual influences the unslackened continuance of any one. In the simple elements of Nature either this multiplicity of internal conditions does not obtain, or it does not exert an influence of the same kind; for, so far as we can survey the history of phænomena, the forces of equal masses have at all times been the same. They do not increase or diminish because they have been in operation for a time, and as they undergo no exhaustion, so neither do they by repeated exercise acquire any habit of more perfect action. We have hence to seek the ground of every new capacity for operation that we

see arising anywhere, in a new conformation of the variable circumstances by which obstacles in the way of the unchanging forces have been removed or lacking conditions of their operation have been supplied. Similarly we have to explain every apparent dissipation of a force by changes in the mutual relations of the masses concerned, such as either put a stop to further action by resistance, or carry it beyond reach of our observation by distributing it over an increasing circle of objects. Every posterior state must therefore be explained, firstly, by the continuance of a prior state at the value which it retains for the moment; and secondly, by the sum of all the newly-occurring circumstances, as joint conditions of the new result.

It will be seen how by these considerations we are necessarily led to refer all changes in the mode of work, all variety of development, and all variations in expression which we meet with in any natural organism, partly to internal movements by which the relations of its own parts are incessantly being modified, partly to changes in the circumstances by which it is connected with the outside world. But almost everything in Nature that engages our most eager interest belongs to this region of variable phænomena, our attention being above all attracted by organic life and by the complicated scheme of events looked at in wholesale. Science must perforce apply the principles of its investigation to these phænomena also, and as inevitably will it have temporarily at least to submit to appear in the invidious character of conceding to the search of imagination neither an inner nature nor true vitality. For if the unprejudiced mind reverences the image of life just because it beholds in all its manifoldness the harmonious fulness of one being, in all the changeful variety of its development the gradual unfolding of one and the same imperishable type, we cannot deny that science certainly does destroy the value of this fair image, inasmuch as it shows its individual features to consist of many separate conditions knowing nothing of one another. Things no longer live from themselves, but through changing

circumstances a changing succession of action is produced in them which we indeed call their life, yet without being able to explain by what unity this vortex of events going on side by side is internally fused into a whole. This reproach—of putting together externally as in a mosaic pattern that which seems to have value for us only as proceeding from a single cast—has been constantly brought against the attempts at explanation of physical science, and we are far from asking that it should not be made. For it has ever been these voices that reminded investigation, when it was laboriously toiling through the perplexities of individual phænomena, of the great ends on account of which alone its efforts have a human interest; they have everywhere opened up anew a vista into a boundless field of vision, where the satisfaction which we experience from the partial removal of the nearest difficulties would have led us to a premature contraction of our views. But while acknowledging most expressly the perfect justice of these charges, we must yet add that none of the modes of conception by which they are usually most vehemently urged has hitherto succeeded in obtaining, without the principles of physical science, results equally indisputable and fruitful with those that have been already won by these axioms in every department of physical explanation. We have therefore reason to hope, that not by deviating from the path which we have hitherto taken, but by following it to the end, we shall meet that mental craving, to baffle which is in nowise intended by the mechanical conception of Nature.

For it is unjust to add to the one reproach of obscuring the unity of life, the other reproach of necessarily regarding the simple elements, from whose combination it deduces all things, as lifeless points devoid of any internal nature, to which forces of various kinds are but externally attached. On the contrary, physical science merely rids itself of such assertions as are unnecessary for its immediate ends; and for its ends the hypothesis is certainly sufficient according to which the atoms are merely centres and points of junction for

effluent and influent operations. For, after experience has taught us that the internal states of atoms—if such they have —exert no modifying influence on the regularity of their working, we can leave them out of account as regards phænomena, without having at the same time to banish them altogether from our view of the universe. On the contrary, further consideration would soon bring us back to the idea on which we have directly based the foregoing view, *i. e.* that forces do not attach themselves to a lifeless inner nature of things, but must arise out of them, and that nothing can take place *between* the individual elements until something has taken place *within* them. All external incidents of union and separation must hence rest on or find their reflection in an inner life of things; and, even if physical science breaks up the unity of compound substances, each single part of the mosaic which she puts instead is a living point inwardly in a state of movement. No doubt this compensation—the only one which we seem at present in a position to offer—will be deemed by many not only as trifling, but also as impossible. Let us leave for the future the task alike of proving its possibility and of showing that its importance is far greater than it seems. Perhaps we shall then find that in a different sense we too can admit the comprehensive unity of divergent forces, without being compelled to deny the validity of physical science, to the recognition of which the total result of our observations will always force us, whether we will or no, to return.

# CHAPTER III.

## THE BASIS OF LIFE.

Mechanical Conception of Life, and Vital Force—The Transitoriness of the Body chemically considered—Change of its Constituents—Propagation and Conservation of its Energy—Harmony of its Processes—The Efficient Idea—Purposive Self-Conservation—Capacity of Excitation—Machines produced by Human Skill.

§ 1. IT has been but slowly that the principles now set forth have found recognition in the study of life. The systematically growing figure of the plant and the incalculable activity of the animal were separated by too wide a chasm from the rigidity and absence of system of their unorganized dwelling-place, to allow of direct observation suggesting even a conjecture of an essential community between the two departments of real existence. The manifestation of life took the imagination captive with the complexity of its internal arrangements, from which a series of the most various states unrolled themselves in fixed order; no ground remained—it seemed—to doubt that a cycle of processes, in meaning and importance so incomparably surpassing all else produced by Nature or by art, must in its origin also be unparalleled. Thus was formed that idea of a peculiar vital force of which we have already stated the essential import, and the special details of which, set up, as it appears to us, in unjustifiable opposition to the advancing claims of the mechanical conception of Nature, we are now about to discuss. However great be the difference between the spheres of life and of inanimate existence in regard to the ideas which the two may be called on to embody in the world of phænomena, it is yet but little in the power of science to refer the causal connection of the embodiment and conservation of life to laws and forces differing from those prevailing in the rest of Nature, out

of which life also is evolved and into which it again passes. As long as that connection holds on which we formerly dwelt as the determining point for our view, as long as life must draw all its sustenance from the common store of Nature, and can be developed only from the substances therein contained, so long will the peculiarities of its evolution be due wholly to the complete obedience with which it submits to the laws of the universal course of Nature. The realm of life is divided from that of inorganic Nature not by a higher force peculiar to itself, setting itself as something alien above other modes of action, not by wholly dissimilar laws of working, but simply by the peculiar kind of connection, into which its manifold constituents are woven in such wise that their native forces, under the influence of external conditions, must give rise to a connected series of phænomena, under the same general laws that elsewhere also are wont to determine the sequence of state on state. Little as we are at present in a position fully to explain the whole complexity of vital processes in the spirit of this conception, we can yet easily see that its main outline and the peculiar habits of working, by which living beings at first seemed to be absolutely distinguished from other forms of existence, are not inexplicable from this point of view, and that the theories still opposed to it lack many of the advantages which we already actually possess in the more precise estimation of the individual rendered possible by the principles of a mechanical conception of life.

§ 2. Hardly any other phænomenon makes to the eye so significant a distinction between life and its absence, as the corruption that consumes the dead body. Here we seem most palpably to be taught that nothing but the predominance of a higher force during life, keeps the constituent elements duly mixed, and prevents the action of the mutual affinities by which after death they pass into far other and simpler kinds of composition. And yet it needs but slight consideration to see the groundlessness of such an inference. For why should we not from this phænomenon rather draw the other conclusion, that the activity of life can last only so long

as the chemical composition of the body yields the necessary conditions, and that the corruption of death is nothing else than a disturbance of that composition which has now become visible, but by which perhaps long since, though less obviously, the conditions of life have been affected? This reasoning will seem forcible in cases where a distinct disease, originating within the body, has consumed its vitality; but corruption invades, though more slowly, even the body that has been struck down in the fulness of health by a violent death; and so we return to the idea that the blending of the elements, maintained during life by a special force, comes under the general laws of chemical processes only when this force ceases to exist.

But closer observation discloses in the living body a scarcely less remarkable shifting of elements. We find that constantly, by manifold kinds of separation, particles are removed from it, which in their chemical composition do not indeed resemble the products of corruption, yet come much nearer to them than does the mode in which the elements of the healthy body are combined. Again, oft-repeated observations teach us that a great part of the textures of which the living body consists, are going through an uninterrupted process of decomposition and redintegration, and that the substances leaving the body in the most various forms, are in part the fragments into which this decomposition has converted what was formerly capable of life. There is no necessary ground to suppose that the process of this decomposition obeys different laws during life from those which even after death control the decay of the body. For the accessory circumstances conditioning both processes are too diverse not to make it easy to refer to them the great diversity observable in the character of their results. The continual circulation of fluids occasions the decomposed elements to flow in the living body in small and imperceptible quantities towards the excretory organs, by means of which they are restored to the surrounding world, and the mischievous effects are prevented which their longer retention in the body would have on the mingling of the other elements.

Moreover, many regulated functions of the living body bring together those elements which by their action and reaction tend to strengthen its fabric and accelerate the repair of its waste; while they separate those whose meeting might set up chemical processes of far-reaching destruction. Thus from decomposition and redintegration arises that slow change of elements which, imperceptibly distributed over long intervals of time, makes the living body appear to us a persistent unity. All these favourable circumstances are absent in the dead body. With the ceasing of all functions the paths become closed by which wasted tissue might be removed and fresh obtained; the already decaying substances, collected together without motion, work longer on each other and wear away the partition-walls that formerly kept them apart; spreading around and no longer under the check of any order, the chemical processes together bring about the repulsive spectacle of putrefaction. We may further convince ourselves of the great importance (for the processes of organic chemistry) of this abnormal grouping of the accessory determining circumstances, from observations made on various diseases, where symptoms of partial corruption follow the cessation or weakening of certain of these motive and regulative arrangements. These facts in no wise compel us to seek in the living body a peculiar and special force, which, in direct opposition to universal chemical laws, should keep its constituents in a combination antagonistic to their natural tendencies. On the contrary, it attains this result when in complete accordance with these laws it allows the decomposition of that which under actual conditions cannot retain its composition, and by means of a well-arranged series of complex movements, prevents the injurious effects of processes which it has no power to hinder, and supplies the losses due to the destructive influence of those processes. Doubtless, therefore, the same laws of chemical affinity govern the decay of the dead and the vigour of the living body; but in contrast to the painful putrefaction of the former, life is an organized decomposition, dependent upon the order in

which incessantly continued operations allow the substances to act upon one another.

I would remark in conclusion, that we ought perhaps to have begun by pointing out the exaggeration with which the perishableness of organic bodies is described. Is it true, for instance, that the wood which we use in our buildings, furniture, and ships, the quills taken from the wings of birds and with which the strange assertions we refer to are penned, and the skins of animals that protect our bodies against inclemencies of weather, do really perish so very rapidly? The contrary is true, for they are among the most durable of all structures, and succumb but slowly to the hostile influence of external circumstances, whilst many products of inorganic chemistry are abruptly resolved into their constituents by slight changes of temperature, or by contact with air or water. Hence it appears that among organic materials it is only those in which the plan of life requires facility of change that are very easily decomposable; and even of these it remains doubtful to what extent they are perishable, and whether the force which dissolves the connection between their constituents is not primarily constituted by the action of other living organisms which strive to develop themselves at the expense of the former.

This peculiar play of changes in substance, which we have here made use of simply as a fact for the explanation of a remarkable phænomenon, we shall afterwards study in its bearing on the establishment of life; in the first place, we find it used by the advocates of the opposite view as a fresh proof of the peculiar nature of the vital force. For, say they, while in the inorganic world each force is inherent in a particular mass, and changes according as this increases or diminishes, the vital force lasts beyond the flux of the constituents of the body, and in contrast to their perishableness manifests itself as a power, not chained to matter, but higher and more permanent. This opinion, however, would hardly deserve an articulate refutation, if it did not present an opportunity of throwing additional light on the real peculiarity of life. For it is

evidently too much to assert in general that the vital force endures longer than the perishable constituents of the body. On the contrary, there are but few parts of the body that at any moment can be given up to decomposition without a disturbance of the course of life, which finds a sufficiently secure foundation for its preservation in the disproportionately larger quantity of constituents continuing during this time in undisturbed cohesion and combination. The most ordinary experiments show that these conditions are too simple to form a mark of essential distinction between vital organic and inorganic processes. The coherence of parts in any structure is usually firm enough to allow of a loose stone being now and then, without danger to the form of the structure, taken away to be replaced by another. But such observations show at the same time that, while repair is going on, the parts of the building cannot bear the same strain as they could previously when it was perfect. Therefore, while the removal of one element does not alter the external figure of an adjusted system of molecules, or perhaps even visibly affect the course of its internal movements, it may yet most essentially diminish the power of the system to resist extraneous disturbance and the amount of work which it can accomplish. We have no reason to believe that in this respect it is otherwise with life. For what we directly observe is no more than this, that the velocity with which the change of material usually goes on in a healthy body does not strikingly modify the character of its vital operations and their natural sequence; and the phænomena yield no basis for the affirmation, that the amount of power of resistance to external influences and the capacity of vital action are also unaffected by fluctuations in the molecular constitution of the body. Of course, so long as parallel currents of decomposition and repair neutralize one another, the bodily force will remain at the same level; on the other hand, where within given periods there is increase or diminution in the change of material, there we shall find periods of greater or less capacity of resistance to disturbance. Finally, the

universal mortality of living beings proves that the vital force does not always go on beyond the constant change of the constituents, but that the latter, even without the occurrence of outside accidents, leads to new relations between the constituent parts, incompatible with the continuance of the earlier play of movements. It is not, therefore, as a spirit brooding over the waters that the vital force persists in the transformation of masses, but the fixed mode of combination of the parts (which do not all disappear at the same rate of velocity, a more slowly altering trunk being always there to form a pattern nucleus for the aggregation of the new matter) makes it possible for the vital phænomena to go on for a long time, without, however, being able to ward off their final termination.

§ 3. But the new life developing itself with exhaustless energy out of that which is passing away, suggests new doubts; in propagation the vital force is without any impairment of its strength distributed over the newly-produced organisms, while inorganic forces, diffused over an increasing quantity of matter, display everywhere only that fraction of their power which answers to the quantity of matter. As a matter of fact, we perceive in children, along with whose life that of the parents goes on, not only no weakening, but an evident increase of vital force. But it is merely first impressions, not closer examination, that make us see here anything more perplexing than in lifeless Nature. Does not the magnet also impart its energy to many iron rods, without thereby losing any itself? And does not the burning body set an indefinite number of others on fire without thereby cooling? Forces are never and nowhere transferred by one substance to another like divisible fluids that can change their place; on the contrary, in every case of mutual action, the one agent brings the other into altered outer and inner states, in which new capacities of action are acquired, or former ones are set free from obstacles to their manifestation. A blow struck upon a rigid mass, whose internal connection it cannot alter, will merely communicate to it a motion, the velocity of which varies inversely as the

mass over which the effect of the blow has to be distributed. The effect will be different if the same blow is given to a small quantity of fulminating silver, whose violent explosion will occasion a far greater disturbance among contiguous objects than could have been occasioned by the blow itself, if it had fallen directly upon those objects. Unquestionably a great increase of force has here taken place by the intervention of the explosive substance. The original shock indeed communicated directly to the parts of that substance only the trifling velocity which it would have communicated to any body of equal mass; but here this insignificant primary impetus encountered particles that had only to be quickly moved nearer one another in order that the chemical affinities long existing between them should receive the final requisite to their bursting into noisy activity. Thus in this case a slight impetus is sufficient to bring about a great effect instantaneously; it will even suffice to produce a long and enduring series of processes evolved one out of another and increasing to great results, when the forces which it has released from their equilibrium are, by the natural relations of the particles to which they belong, made capable of only gradually unrolling their results.

Therefore, however much the propagation of life, by means of the careful arrangement of harmonious activities which it presupposes, may always excite our admiration, it does not give rise to the same difficulties that we have already found to favour the assumption of a peculiar vital force. For its real process consists simply in this—that a very insignificant portion is detached from the maternal organism, with whose vital processes it stood in no important connection, and becomes the germ of a new being. Even were we to assume that to it was transferred part of the vital force of its parents, this part could only be an infinitesimal quantity; for the vital energy of the germ we find to be at first very slight, and it attains the capacity of a considerable amount of work only after a long course of growth, during which it adds to its strength by the assimilation of material from the outer world. Thus even

in that case the organism producing it would lose but little, and certainly observation will not justify the assertion that this trifling loss is not accompanied by a correspondingly trifling diminution of the parental vital energy. But it is of little use to pursue a train of thought, the general impracticability of which we have already recognised; forces are not communicated by one thing to another, only movements can be communicated; or substances may be set free from a larger group to carry on an independent existence. All propagation must therefore depend on its being possible for the parent to set up a germ, which, trifling in mass, is distinguished only by the carefully arranged combination and mixture of its constituents, and only by this means is made capable of developing into a living being, with increasing strength, under external favouring conditions. The original production of a new being is therefore not an effort, from which it were natural to expect a diminution of the parents' energy; though it may well be that the many exertions which in many instances the maternal organism has to make for the early invigoration and development of the germ, seriously imperil its vital powers.

But do we not forthwith again meet the same problem from which we have been trying to free the mystery of propagation, in the mystery of growth, of the continual increase of energy and mass in the newly produced organism? As the frame increases which it has to control, we see the vital energy increase, whereas in general every capacity dwindles as its tasks become heavier. But this difficulty, too, is cleared up by closer examination of the real process, and it deserves mention only on account of a common prejudice associated with it. When the growing body absorbs the substances of the outer world and presses them into its service, we too often imagine this acquired material as so indifferent and so devoid of activity that it would seem to need a special cohesive force to retain it in the same combination when it has once been brought together. Our ideas of the connection of organic parts are too much modelled on that of a bundle of objects, which being indifferent

to one another and totally destitute of cohesive power, need to be tied together by a band external to them all. That is the meaning of the common craving to know the bond that holds together the body and the soul, or the constituents of the body, or lastly the mental elements. For the connecting principle of these last, though probably conceived as higher in its nature than a material bond, is yet not thought of as essentially different from a cord; for it seems to be regarded as something which, while itself one and indivisible, fastens together a plurality of hitherto unrelated parts by very much the same folds and knots as a cord. The reality is different. To obtain the materials by which the organic body grows, may require peculiar exertions, of which we shall elsewhere speak; but their retention in the particular positions which they have once taken up relatively to one another, is no act of violence which they resist, so that a special vital force, stronger than the forces of all the parts, would be necessary to carry it out; the elements are not even indifferent to this task, but carry it out themselves. For, in entering the region of the living body, they do not divest themselves of the forces that were before peculiar to their nature; but by means of these forces they cohere with one another, and thus conform in common and in accordance with the needs of the organism to the same laws which formerly they obeyed when separated, outside the organism. Hence, instead of one band enclosing with surface coils the innumerable parts, we find innumerable ligaments each uniting two single elements of the body, and these are nothing else than the peculiar forces of the elements themselves, which do not need to be impelled by any superior mandate to the discharge of a function congenial to their nature, and which would not submit to be impelled to one alien to it. Every individual atom by which the mass of the body is increased, enters the system by virtue of the attractive force exerted on it by some one part; kept in its place by the same force, whose exercise involves no effort to the body, it now sets at the body's disposal its own mass with all the forces mechanical and chemical belonging to it, and thus

the body acquires a greater power of acting on the external world, and consequently increased energy. The work of vitality consists only in this—that the already existing stock of corporeal constituents be at all times so arranged and in such wise come into contact with the material of the outer world, that the action originated and consequently the fresh supply of particles may be adapted to the needs of life.

This task also can be so regarded as to revive the old difficulties. As before a bond was sought for the inert elements, so now perhaps a bridle is desired, by which their activities might be now permitted, now checked, at one time hastened, at another retarded. This would indeed be a nearly impracticable task if it had to be committed to a single force, by which the plan of the organization should be carried on at each moment by special help. But this work also is performed of itself, so long as external disturbances do not derange the relations beyond calculation. A group of particles forming the germ of an organic being, can easily be so arranged that in the course of its development only particular spots are left for future action and reaction; others become so rigid that the substances of the outer world pass by them without producing any effect, in order to diffuse themselves by paths which are organized exclusively for the progress of the organism, and which render possible a steady course of growth according to a permanent model. Even in the crystal the new accretion of the same substance does not settle anywhere, but the forces of the existing form prescribe to the later additions the place and manner of their aggregation, and during their accretion preserve the original figure or at least the original law of its formation. What inorganic Nature here executes, is performed with incalculably greater delicacy and complexity by the living body, but not on different principles of working, and a closer examination of its structure and its operations will show how much that seems difficult is easily and automatically performed, because gradually in the long course of development each prior state limits the number of indefinite possibilities of further work, and confines later events to lines more strictly marked out.

§ 4. Thus also the maintenance of order in the changeful multiplicity of vital processes would be caused not by the ever renewed assaults of a special regulative power, but by the arrangement of a system of particles once for all established, and then realized through the usual operations of these individual elements. We have already added that this result presupposes the warding off of external disturbances. But here we meet with a new peculiarity of life, viz. that with appropriately reacting remedial energy it survives and removes even these disturbing causes All its other phænomena may be looked on as the gradually and regularly succeeding movements of a machine, whose structure once there and set in motion gives rise to a variety of effects which follow one another; but the adjusting activity that accommodates itself to circumstances, and always seeks with the choice of the best instruments to keep to the original plan, seems to be possible only for a vital force, guided not like the other physical forces by a monotonous law of working, but by a modifiable regard to the end of the work. But then how much—alike observation and reflection—concurs to render questionable this illusory conclusion! For illusory it is, first in that it presents the facts in a far too favourable light, and keeps back the deep shadows. Death, that brings so much life to an end before the natural close of its evolution, proceeding from disturbances so slight as to elude our observation, first of all convinces us that the body's recuperative power is not absolute, and the multitude of diseases that, but partially overcome, embitter future years, show further that it is exceedingly limited. Even healthy life, seeing it is not a play of self-caused movements, but flows on in constant action and reaction with the outer world, includes a great multitude of bodily changes which are primarily to be regarded as disturbances of its system, for whose counteraction a variety of ever-continued operations are provided in the original plan of the body. Now a system of parts having relations so suitably arranged that within certain limits its activity can subdue the lawless influences of the outer

world, does not lose this capacity at the very moment when these limits are transgressed under unusual circumstances. With the various ingenious contrivances which it before possessed, it often succeeds in overcoming even amounts and kinds of disturbance for which it was not adapted, either wholly or at least so far that the injury received does not conspicuously affect the character of its movements. But, of course, it is irrecoverably damaged so soon as there is in its structure and its organs no favourable circumstance to bring the disturbance to an end by means of the reaction produced in the system by its stimulation. We see from a host of examples how far this problem can be solved even by human skill, with the imperfect means at its command. Machines can be constructed so that the unequal expansion of different metals at the same degree of temperature does away with the injurious effects which variations in temperature might have on the precision of their operations; the steam-engine can be compelled, while in motion, itself to set going a contrivance by which the lubricating oil is supplied to the wheels in just such measure as is required by the actual velocity of the train. If we look on these achievements with a certain pride, it shows the narrow tether of human power that we can be proud of such results; they certainly are exceedingly trifling in comparison with the infinite delicacy and versatility with which the living body resists innumerable minute disturbances all at once; but this difference in value does not entitle us to infer an equally wide difference in the method of working.

In the organism also the curative reaction is connected with the purposive character of its internal arrangement, and extends only so far as external assaults leave this arrangement unaltered in its essential character. We shall vainly expect it to act, when the violence of the disturbance has deranged these favouring circumstances, though even then the after-effects of the original adaptability are so great that health, now become impossible, is not at once succeeded by complete dissolution, but by a state which is endurable,

capable of some duration, and conservative of at least the main outlines of the vital plan. On the other hand, we never see a curative reaction of such a new and quite unusual character occur, that healthy life has not already made constant use of it. Only sometimes with heightened impetuosity and in a different combination external disturbances excite these always already existing activities, and this very agitation, while sometimes causing unusual results, in quite as many cases entails complete dissolution. Did a peculiar curative energy animate the body, dealing with the physical and chemical forces of masses with any freedom of choice whatever, and at all independently, it would be difficult to explain why it could ever fail in the execution of its designs, when once raised above natural necessity. We understand the necessity of its limitation, when we take it as the sum of that which the living body with activities adjusted to the usual circumstances of life, can accomplish even under such as are unusual.

§ 5. So great, however, is the admiration extorted by the complicated structure of life even from those who hold the mechanical conception of it, that we do not become impatient with our adversaries even when they are always pressing on us their idea of a peculiar vital force in fresh forms. "We do not ask" say they "a new force, a healing activity that should all at once begin to work, and, without any foundation in the constant arrangements of life, should only intervene in case of disturbance; but we only can understand the whole course of the phænomena of life if the vital *Idea of the whole* is ever binding the parts together as the ruling principle; it is the activity of this which, while less obtrusive in health, to whose perpetual wonders we are accustomed, becomes more evident in its heightened reaction against the violence of any disturbances of it. Only in unorganized structures does the whole arise out of the composition of the parts—in living beings it precedes the parts." It is clear that this last assertion can have no other meaning than that the form of the whole is already present in the developing body as an animating and regulating power, even before the whole sum of parts, by which its out-

line is one day to be filled, are yet in existence or in their right places. In fact, several processes in the first development of the germ show that in the places afterwards to be occupied by definite organs shapeless-looking masses are at first deposited, in which the division into parts pertaining to the perfect organ is afterwards developed. Circumstances of this sort may temporarily favour the view under discussion; but these regular developments adapted to a common plan of the whole, and going on simultaneously at different spots in the germ, lose their harmony when the mechanical connection of the parts of the germ is disturbed by derangement or lesion. This fact shows that the disconnected formative processes are maintained not solely by an Idea hovering above them, but by the definite arrangement of the reciprocal actions taking place between all the single parts in virtue of their fixed position relatively to one another. By these reactions the material capable of being formed is deposited at prescribed places, and through their further operations, which subsequently acquire new conditions in consequence of this first result, the gradual articulation of infinitesimal constituent parts takes place. Would it be less marvellous if the organism, starting from a single centre, produced the immediately adjacent parts at once in their final form,—would we not consider this still more mysterious? The formation of every organic part thus depends on its being developed in constant association with all the others belonging to the same whole; but this consists not in their all being embraced by an active Idea, but in all being woven into a system of physical actions and reactions, from which each receives the form and velocity of its development and movement.[1]

The facts at least permit this view; a more general consideration shows it to be necessary. For the expression *Idea of the whole* has a twofold meaning. We may denote by it, in the first place, the pattern and the plan which we perceive to be embodied in the complete organic structure, or persistently followed out in its gradual development. But no pattern, no plan, regarded as the end of a natural process, is

[1] Entwicklungsbewegung.

realized of its own accord; it will be realized only when the substances in whose grouping it is to be manifested are compelled by an original arrangement of their relations to produce by their forces what it prescribes according to the universal laws of the course of Nature. Thus it constantly exerts but an apparent power, and as little as we look upon the Idea of disorder as an active and moving principle in a random series of changes, so little can we consider the Idea of any order as the efficient and sustaining cause of a regular cycle. In both cases what takes place is that which must occur in the given state of things, and the superiority of the latter consists not in a constantly maintained purposive activity, but in the persistent after-effects due to the purposiveness of the first arrangement. "But" it will be objected "whence proceeds this original arrangement?" We know not, and this is not the place to set forth the conjectures which we may form in regard to it. It is not our intention to deny in the organic world the traces of a wisdom that point us beyond the mechanical concatenation of mere events to an uncomprehended, creative Power; but neither is it our task to seek the first origin of life, we are simply investigating the laws by which within the limits of our observation the mysterious creation is maintained. And we find that within these limits no new life arises, that the maintenance of life is on the contrary dependent on the uninterrupted transmission of certain substances with their particles in a certain conformation, as in propagation they are unceasingly transferred from one organism to another. Here we find a proof that Ideas are no longer capable of being embodied in substances unless their internal distribution is already most carefully so arranged that from this alone, without any further assistance from Ideas, nay, even in opposition to them, the form prescribed by them must of itself arise. Ideas may indeed at the beginning of the world have been the determinants of the first connections of things; in their maintenance, on the other hand, it is the activities of the parts that realize the content of the Ideas.

We are indeed aware that the advocates of the view against

which we are contending do not conceive the Idea of the whole as an unreal pattern, powerlessly confronting the reality of substances. Yet, holding the Idea to be itself a living and efficacious power, they are constrained to go over to the other definite signification that may be given to this much misused term. Should the efficacy of the individual parts not suffice for the harmonious evolution of the whole, the higher bond that is to be the complement must everywhere receive an impression from the situation of things with which it is to interfere, in order at the right moment to bring about that which is adapted to the actual situation. Such impressions may be viewed as alterations of the state of the bond, which excite a definite reaction from it with regular necessity. It is obvious that on this hypothesis the bond plays no higher part than each of the material substances, which, receiving impressions from one another, on our view also produce the formation of the organism by the mutual influence of their reactions. The only peculiarity of this view would be that, instead of making all the parts contribute equally to the establishment of life, it puts *par excellence* as the focus in the middle of the others a single one, in which the concurrent effects of all produce a plurality of harmonious activities. Now, no doubt it is the case that the various parts are of very various importance for the establishment and maintenance of a definite form of life; yet we shall look in vain within experience for any fact entitling us to consider one of these as exclusively representing the Idea of the whole. But then that view does not wish to see in the higher bond which it seeks the same lifeless necessity of working that it desired to banish from the organism altogether. It will require that this bond react on the impressions which it receives in such a manner as to be in accordance with, but not necessarily dependent on physical laws. And such reaction being required by the scheme of the organization, the bond itself is supposed to give rise to it, and in this way complete the circle of natural causes, otherwise not absolutely closed.

Now, if we will not stray into vagueness, and choose for

our basis of explanation something of whose nature and essence we cannot form the remotest idea, we must be fain to confess that this kind of purposive working belongs exclusively to a *soul* and not to an *Idea*, and we must convert the shifting conception of the Idea into this more distinct notion. The soul alone, endowed with the capacity of recalling past impressions, can fill up this chasm in natural causation. Acted on by a variety of stimuli, in which nevertheless the *complete* conditions of the desired result are not to be found, it evolves in addition a representation of that which is temporarily lacking in the reality. From this, which is substituted for the actual impression, it arrives at the purposive resolution, which in turn begins to exert an active influence on external reality. Thus the connection, after having been severed in the physical sphere, is restored by a series of effects in the mental sphere that join together two events, of which the first did not contain the whole ground of the second.

Accordingly, the further hypothesis has not been absent from the history of science, that it is the soul whose activity controls the order and fitness of organic development. But if this view contains a part of truth on which we shall subsequently have occasion to enlarge, yet experience is not in favour of the attempt to set it up as a more satisfactory explanation, in opposition to the mechanical conception of life. It may be otherwise in the souls of the lower animals, into which we cannot transport ourselves: in our soul at all events we find no consciousness of this formative activity. And yet this capacity of the soul to perform more than the mere course of Nature depends on consciousness and the peculiar laws of the train of ideas. It is only where, in consequence of former exercise, a habit of purposive working has become confirmed as a second nature in the soul, that the train of ideas that underlies it may no longer come into consciousness in each particular case. On the other hand, the supposition that the soul from the first organizes the body with unconscious activity, would only lead us to regard it as well as all the material parts of the latter

as an element without freedom, which, stimulated by circumstances, develops necessary effects according to universal laws. Perhaps on account of this suggestion the view in question has value; among the many constituents that make up the fabric of life, there is perhaps one separated from the rest by a special difference in its nature; nevertheless, its presence would not alter the fact that all purposive operations in the vital organism necessarily depend on the mode of combination of the parts among which it exists. On the other hand, to require that the soul should effect what has not an adequate foundation in this, and that it should unconsciously bring about such an effect, would be to require it to perform a task, and at the same time to deny the one condition on which it could be performed.

§ 6. We have pursued the doctrine of a special vital force into the various forms in which it has successively sought acceptance; directly or indirectly all arose either from observing that the reactions of living beings on the impressions to which they are liable, seemed not to have their entire foundation in these stimulations, or from noticing that the successive forms into which they are developed without any apparent impetus from without are not completely explained by their antecedents. This excitability through which the external influence is followed by unexpected reactions, corresponding to it neither in strength nor in duration nor yet in form, seemed to divide the region of life from that of lifelessness; for the actions of the latter, it was believed, could be completely developed from the sum of all the given conditions as obviously necessary consequents. There is some self-delusion as regards both clauses of this proposition. Where any external shock falls on a compact whole of many parts, the magnitude, duration, and form of the final effect produced never depend on it alone, but conjointly, and generally in a far higher degree, on the internal connection of the parts struck. Through their mutual relations the amount of the impression received can be diminished, increased, or distributed in the most diverse

manner over a given number of points, or directed in its diffusion so as to be enabled to set free fettered energies, or convert kinetic into potential energy. These manifold intermediating circumstances finally lead to a result by no means resembling the original shock by which they are produced. Every machine has this capacity of excitation. While the workman is turning an outer wheel with a constant rate of velocity, the internal machinery on which the blow falls is worked by the alternate upward and downward movement of a piston, which itself, according to the mode in which it is combined with external objects, can in very various ways transmit further the force of its movement. Precisely in the same manner the infinite variety of the parts of the body, with their perpetual internal movements, stand midway between the impressions which we see made from without on the living body, and the final reaction. If we are entitled in general to refer to this intermediate link the phænomena of vital excitability, without, however, being able to trace the chain of intermediate links completely in the great complexity of vital processes, we can see in it not a peculiar operative vital force, but merely a kind of operation common to the living body along with every mechanism.

But we would be wrong to limit this excitability to composite systems, to which the name is chiefly applied. It is no less characteristic of the simplest substratum. Or can we prove how in the heightened temperature and the mutual approximation of two elements the necessity of their chemical union is already fully established? On the contrary, we must suppose that a qualitative peculiarity of their nature is only stimulated by these external circumstances to an effect such as the circumstances themselves would not produce if they worked on other substances. The result taking place, everywhere depends not only on the external conditions with which it is associated, but also on the nature of that on which these work. The reaction of inorganic substances is only simpler, owing to the fact that it usually follows on similar stimulations in identical kind and amount, because it

starts from a persistent excitability unalterable in its constitution. Organisms, on the other hand, internally in constant motion, present to the same stimuli at different times a different excitability, and their reactions thereby assume the appearance of arbitrariness in a higher degree than the more uniform ones of lifeless matter, from which, however, they in no wise differ as regards the ultimate laws of their origin.

Thus from these considerations also we return to that mechanical conception which in life, as everywhere, makes the possibility, the kind, and the concatenation of compound results dependent on the harmonious efficacy of the parts, and the idea is given up of a single force with fluctuating energy, guided solely by regard to the attainment of an end. But we will endeavour by some further remarks to obviate the unfavourable light in which, as contrasted with the opposite views, ours must appear. We cannot indeed promise to offer the same advantage as is contained in the fundamental idea of the view which we reject. We cannot ascribe the origin of the fair unity and subjectivity of life that is wont to chain our admiration, to the mutual action of parts which in even their closest relations to one another yet remain and must remain different, if they are to form that plurality of active and passive points on whose manifold connection the very advantages of our own view depend. Nevertheless, it would hardly be fair to reproach us with regarding the living body simply as a machine. For ready as we are to acknowledge that we really do assume the same universal laws of action for both, yet in the manner in which these laws are applied in the products of our skill there is a certain pettiness that we should be reluctant to see ascribed to the voluntary automata of Nature.

Our machines work with second-hand forces; they are founded on the solidity, the cohesiveness, the elasticity of certain substances; but, instead of producing any of these properties afresh, they presuppose that they are already formed by the elemental forces in the material supplied by external

Nature. A fixed invariable degree of these properties is what is required to make the machine work; every alteration of this degree acts as a disturbance or a waste of the proper relations. Further, the rhythm according to which the transmitted impelling movement is propagated is based on an ingenious interlacing of single parts; but this mode of combination is not produced by the active living attraction of the constituents themselves; here we see firm cohesion produced by nails, bolts, rings, and screws, moveability of parts related to one another secured by revolution round fixed axes; everywhere we find the immediate attractions and repulsions of the elements not applied at first hand, but their static products, rigidity and impenetrability, made use of to attain by external composition the end of the machine. Just so the active element in it is hardly ever a newly-evolved force or movement, but all its operations depend on the communication or propagation of an impetus received from without. But then in our time this impetus itself is most frequently produced by the use of elemental forces, the vivid elasticity of steam being developed by heightened temperature. Yet even that vivid force serves only in general to excite a motion in itself formless; and the impetus given receives its definite conformation and consequently its adaptability for the purpose of the machine solely from the position of the rigid wheels or springs on which it strikes.

It is different with the voluntary agencies of Nature. No material band connects the planet with the sun, but the direct efficacy of an elemental force, universal attraction, invisibly holds the two together with an elasticity in their interaction that no artificial construction can imitate. No fixed axis, no screw-worm, no winding and unwinding rope, compels the planet to leave its motion in a straight line for a curved path, but the perpetually continued and perpetually varying conflict between its original velocity and the attraction that impels it towards the sun, leads it invisibly but surely to and fro on a fixed path, and no wear of the means of locomotion mars the continuance of this admirable adjustment. Yet this rests on

no other universal laws of action than those which hold good as well for our machines. The same kind of activity is again exemplified, and with infinitely greater variety, in the living organism. This, too, works with no merely external combinations of means indifferent to one another; in it too the springs of action everywhere disappear below the current of immediate effects; each of its elements, while developing, retrograding, and changing, displays towards its neighbours the whole store of those primary forces which belong peculiarly to it, and here these effects are not interruptions of the progress of the whole, but form the conditions which are always afresh giving rise to its reality as well as to all the marvellous delicacy of its form. And even where, for the fulfilment of certain of its tasks, the living body does make use of the machine's mode of working, as in the movement of the limbs, whose rigid bones it draws according to the laws of the lever by the ropes of the muscles, even there it forms and maintains lever and ropes by an unremitting activity consisting in a complicated chain of direct working of atom upon atom.

It is the limitation to rigid instruments already prepared, and to an external connection between them, that gives mechanical work that uncanny appearance which causes us to feel most repugnance to a comparison of it with life. We often see two parts of some mechanism out of relation with one another, perhaps the one motionless, the other in a state of motion to which all around is indifferent; suddenly, when a particular position has at last been reached, a shock takes place, and the single parts are at once drawn into mutual action, without having shown any signs of a gradually advancing preparation, and they next moment relapse into their indifferent repose. In consequence of the uninterrupted stream of action that is ever flowing from one atom to another through their immediate forces, and thus at each moment bringing about a complete connection of the whole, living beings escape from this inequality of development. Each infinitesimal part seems to have a knowledge of what is going on in another, and the reciprocal action of all, kept up unremittingly and

not distributed in shocks over distinct moments, gives the development that admirable appearance of softness and mild grace which sets anything living in such triumphant contrast to the spectral disjointedness of the movements of artificial automata.

Thus in our opinion also there is in organized beings a real life, in sufficiently sharp contrast with the apparent activity of machinery to distinguish its divine origin from the poor productions of human art. Yet we would once more revert to the grounds of the obstinacy with which we hold fast this view in apparent opposition to many mental cravings, whose rights we yet fully acknowledge. It is not from an inclination to look on life as the result of an accidental assemblage of parts; on the contrary, we provisionally forbear to discuss its origin, as a mystery; it is only its maintenance which we believe to be committed to the connection of the course of Nature without the intervention of new forces. And, just as the laws according to which our planetary system revolves were laid down in a hitherto uncontroverted science, before a credible conjecture had yet been made as to the origin of its present arrangement, so an independent theory of the maintenance of life may precede any views as to its origination; nay, it will be from the complete elaboration of the former that we shall learn in what direction we may hope for the elucidation of the latter. We are actuated solely by the conviction that Nature, not only in its import, but also in the laws of its economy, necessarily forms a whole, whose various products are distinguished from one another, not by different laws, but by a different mode of applying the same system of laws. On this assumption rest all the hopes which we cherish for the progress of science, and all the habits of our practical life. The feeling of those who recoil from the stupendous task of actually tracing back to these beginnings the infinite variety of life, is one which we fully share. But the magnitude of the required problem must not induce us to choose for its easier, but only apparent, solution principles of which we do not clearly discern even the possibility. Of such prin-

ciples the idea of a single operative vital force is one. It is not obvious where such a force could be inherent, unless in the sum of living parts and their systematic combinations, it is not obvious how it should come to alter its mode of operation and at each moment to effect what is necessary, so long as we do not suppose that, by regular necessity, it becomes different, and works differently, under altered circumstances, like every force which is the result of a variety of changeable parts. That it is associated with these parts and dependent on the manner in which they are combined, that it only effects anything by constant action and reaction with the inorganic world, is the universal testimony of experience. We have no right to neglect this testimony and to conceive that which we see only as dependent on fixed conditions, as a power rising superior to these conditions in an independence and freedom which it is impossible accurately to define. How little the characteristics that have been dwelt on as distinctive attributes of the vital force necessitate any such assumption, we have shown at more length. We should be as much at a loss to give any further reason for making the assumption, as to point to any use which science has hitherto derived from it.

# CHAPTER IV.

## THE MECHANISM OF LIFE.

Constant and Periodic Operations, and Progressive Development—Anomalous Disturbances—The Application of Chemical Forces and their Results as regards Life—The Development of Forms from formless Germs—Change of Material; its Significance, Mode, and Organs.

§ 1. IN our survey of the transformations which the general conception of Nature has undergone in the course of human history, we remarked how vain it would be to seek to apply the attractive idea of animating impulses to the explanation of the embodiment and conservation of individual phænomena in the economy of Nature. We saw, further, how from the nature of its problems, physical investigation has necessarily been driven to regard every composite being that developes itself in a course of changing evolution as the result of many forces, whose total effect receives its definite form from the mode in which the subjects of those forces are combined. Finally, the consideration of the phænomena familiar to all as the leading traits of life, served to confirm our conviction that even life, however immeasurably it may surpass all other existence in value and in significance, yet does not require us to go back, for an explanation of its connection and its performances, to the hypothesis of a vital force of a special nature. The more imperatively are we now required to render an account of those peculiar arrangements by which the constituent parts of the living body are enabled without the continual intervention of a higher force to carry out this complex process of development. The more accurately, however, we compare the variety of the phænomena presented to us with the knowledge we have as yet acquired of their conditions, the less shall we cherish the presumptuous hope of

ever reaching a full solution of this problem. Over-confident attempts to answer decisively every question with the exceedingly insufficient means now at our command, can but confirm the opposite opinion when it infers from the difficulties, which it more justly estimates, that the end is impracticable, which in spite of being unattainable must yet determine the line of our inquiries. At the same time our ignorance is not so great but that in the description of particular vital processes we can trace the mechanical concatenation of effects for a long way, and our survey of the whole is not so limited but that we can distinguish some of the fundamental features by which the application of Nature's general means to the ends of life is distinguished from the other ways in which we find these made use of.

We see various modes of occurrence of processes cross one another in the living organism. Some operations last through long intervals unaltered and with a uniform force; others traverse in unequal periods complete cycles, and return almost to the same state from which they for a time deviated But these constant or recurring motions are everywhere attended by another progressive evolution, owing to which the living body, by an inherent law of gradual development, has its outward figure and the internal connection of its processes transformed, in order to end with the dissolution that forms not only the inevitable, but the naturally predestined close of its phænomenal existence. But even this progressive evolution and the regular sequence of its stages are interrupted at every moment of life by the variety of external impressions and an equal variety of reactions, in which the living organism sometimes with transient excitement, sometimes with persistent effort, moves both itself and the objects of the outside world. Neither impressions nor movements are governed by a fixed law as to their times of recurrence or their rotation; set at work or in motion with arbitrary casualness, they may at first be looked on merely as disturbances of the body and of those arrangements which form the basis of the invariably connected course of its definitely

shaped development. Nevertheless, the essential characteristic of animal life lies not in quiet steady development, but just in the capacity of action which at every moment is able to direct an excess of vital energy against chance impressions. Hence at least the general possibility of these reactions, which could not be singly foreseen and calculated, must be regarded as an essential feature of animal economy.

We may easily ascertain in the inorganic world examples both of the persistent continuance of one and the same event and of the complete cycle of a recurring development. In fact, for the persistence of every simple motion of a body no further agency would be required than the keeping away of disturbing causes; again the occurrence of a single disturbance—say, of that attraction which draws one moving body to another—would be sufficient to make its path a curve, and but a few more special conditions would be needful to convert that into the elliptical orbit in which the planet revolves round its central body. This regular interchange of movements between two bodies would be endlessly continued and repeated, so long as they remained withdrawn from all internal alterations in their mass and forces, as well as from all impressions from the surrounding world. But it would be a delusion were we to adduce these examples of constantly uniform or recurrent evolution as evidence of the ease with which life also must succeed in producing actions of a similar character. For, though its activity also ultimately rests on the application of the simple laws of the conservation and composition of forces, yet on closer inspection we find that the operations carried on unremittingly within the living body, as well as the constant assimilation and conservation in the particles, are effected by far more complicated processes than could be divined from the apparent simplicity of the result.

They resemble the quiet light of a wax-candle, whose uniform radiance tells nothing of the series of complicated operations by which it is sustained. When the first-lighted part of the wick entered into combination with the oxygen of

the atmosphere, it produced while burning more heat than was needful sufficiently to warm the contiguous part to enable it to enter into the same combination with the oxygen. Thus the flame spread from this second part to the third and over the whole, each point, by a part of its released heat, setting free the confined forces of another so as to bring it into a similar blaze. But the flame would too quickly have consumed the delicate texture of the threads, if another part of the disengaged heat had not liquefied the wax whose office is to feed the fire. In consequence of the capillary attraction of the wick the fluid mass mounts upward, and, after having by saturation prevented the texture of the wick from being too quickly destroyed, it reaches a point through whose high temperature it is itself kindled, while the mounting current of heated air, rising from the flame, is at this point followed by a fresh draught from below, that keeps up the blaze. Thus the molten fluid, now itself volatilized by the fire, is again emptied from the filled threads of the wick, affording to the new material, to whose melting it has contributed, free space to continue the same series of processes as it moves upward.

The apparently simple and uniform operations of the living organism depend on similar arrangements. Only, while the flame goes out so soon as its fuel is consumed, in the organism the connection of the whole makes it possible for the vital activities to be resumed afresh. They thus manifest themselves not so much as elemental processes which by their uniform persistence form an abiding basis for the variations of the others, but rather as operations which the unity of a wider and more complicated plan brings about, simple indeed in their course, but refined and highly intricate in their antecedents. Equally inadequate would be an explanation from the analogies of the planetary revolution, of the periodical cycles which we see completed by other movements of the living organism. The pulsations of the heart, the rhythmical contractions of the intestines, the cycle of respiration, are all processes having no resemblance to the simple motions of detached bodies. We see here a great number of firmly connected parts co-operating

in joint movements that necessarily imply for their execution a change in the combination of the parts, and a sacrifice of some of the conditions on which their individual efficacy depends. Hence these actions are subordinated to a more general and comprehensive scheme, which secures the repair of exhausted powers and the regular recurrence of the needful stimulations.

We should look in vain in the inorganic world for the third of the above-mentioned modes in which complex processes run their course,—progressive development through a gradation of predetermined states. It belongs exclusively to life, and appears in the full beauty and purity of its significance in the development of plants. Nevertheless it is not wholly useless to trace the comparatively imperfect anticipations of it which we may find in unorganized existence. Only between two bodies, as we have already indicated, could the reciprocal action of a circular planetary motion go on with unceasing regularity; the addition of a third would alter the mutual relations of the two, and compel them to move in orbits that revealed the influence of external disturbance. Only in periods of considerable length, if at all, would this system of bodies succeed in returning once more to exactly the original relative positions, and in thence repeating its completed motion without any modification. With the number of the active members the difficulty of a rhythmically recurrent course of changes will increase, and it will require particularly favourable conditions to limit the mutual disturbances to such a minimum amount that they shall not on the whole materially affect the character of the system and of its motions. Such conditions actually obtain in our solar system, and chief among them is the fact, that, with all its variety of internal motions, it forms an independent and isolated whole, not reached in any perceptible degree by the influences of those parts of the universe that lie beyond it, the more distant fixed stars. The results would be different if this system, like the body of the plant, were exposed to influences from without, and like it had all the movements which it naturally executes influenced and changed

by a regular or irregular recurrence of external impressions. Let us suppose that a system of heavenly bodies moved through a space in which it met with masses (distributed according to any law) on which its power of attraction could act; now not only would it grow, from drawing these into the sphere of its own movements and henceforth attaching them to itself, but further, by the accession of these new constituents the mutual relations of the prior ones would be altered, and the motion of the whole would constantly assume new forms, each one necessarily evolved from that immediately preceding, and from the effect of the new conditions of the moment. Thus a regular gradation of states would arise, comparable to the single successive phases of vital evolution. For the living body is just such a system of parts, not secluded from external influences, but open to them and needing them for its development. The ground of that into which it develops is not wholly contained in itself; it requires not only the afflux of the materials which are to make up its increasing figure, but also stimulating impressions, which shall determine for its own forces the direction and order of their manifestations. Though apparently isolated, the body is yet but one half of the basis of life, while its complement lies still without form in the universal current of the course of Nature that is surging up around it.

§ 2. The development of life is not, however, exclusively thus determined; we must add a further peculiarity, which would serve broadly to distinguish it from such an evolutionary planetary system as we have pictured. The extensive application of *chemical* affinities and of attractions at imperceptible distances takes the place of gravitation, which pervades the universe and binds together its most distant parts. The ordinary view, in regarding only the body of the plant and the animal as a living connected whole, while it considers the planetary system as a congeries of separate units, is not without grounds for this distinction; it coincides with that difference of powers, which in both cases has the most important part in the production of the varying development. Even the planetary bodies are

formed and held together by attractions which are efficacious only in close contiguity, and disappear at finite distances, and incessant chemical changes are always transforming at least their surfaces, but these internal fluctuations are of no consequence as regards the attraction in virtue of which each holds its place as a whole in the circle of the heavenly bodies. In the living body, on the other hand, weight tells everywhere, so far as is compatible with universal laws; but however important and significant these effects may be in individual cases, they have no pervading influence on the character of the vital phænomena. In consequence of that attraction at a distance, whose efficacy extends through unmeasured regions of space, the planetary system possesses that apparently so slight, and yet really so firm union of parts, the amount of which decreases in proportion to the distance between them; the living body, on the other hand, through forces that no longer act at a short distance from their starting-point, but overcome great resistance when the parts acting on each other are in immediate contact, acquires that firm, compact structure by which it invariably stands out, as a separate whole, from its surroundings. And this distinction is not merely apparent. The connection of a planetary system, left to itself, may be firm; but as it is the result of forces acting at a distance, so also it can be shaken by such as come from a distance, and will show by corresponding fluctuations the influence of the slightest alterations in the adjustment of the world external to it. On the other hand, the peculiar nature of its forces serves to protect the living organism, which is destined to be continually in action and reaction with the outer world; from the shortness of the distance at which chemical affinity and cohesion cease to be efficacious, it is surrounded by a neutral zone, while these same forces hold together its own contiguous parts so strongly as to resist even actual violence. While, therefore, the loosely compacted structure of a planetary system would with admirable susceptibility reflect in its own variations the variations of the rest of the universe, the living organism—herein of

tougher nature—returns to the former disposition of its parts, even after great fluctuations, and thereby presents the spectacle of an unchanging and yet not rigid, but moveable figure.

We would fain mention here yet another advantage that accrues to the living organism from the same circumstance, though it may at first sight appear a disadvantage. We have become so accustomed to see in the exceedingly intimate mutual connection of the parts one of the most essential and wonderful prerogatives of life, that it may seem strange when we lay stress on the absence of such in a certain sense as its real attribute. Nevertheless this absence is real, and we may easily convince ourselves that there lies in this fact, which for particular ends is again neutralized by special provisions, a better warrant for the continuance of life than would lie in the excess of pervading connection, which we do not find. Were all the parts of the living body directly connected by reciprocal actions, so that every slight change of the one must be reflected on all the rest, there would be here an abundant source of endless disturbances of the whole, which would require equally complex arrangements for their counteraction. For it would not always be possible to discharge the disturbance by means of its own results, and, even where this was done, the very instability thereby introduced into the whole would be an evil, if it could not be incidentally applied to the attainment of other ends. In the planetary system we see the result of this pervading reciprocal action, seeing that no single planet can describe its orbit as it would describe it but for the disturbances produced by the attraction of the others. The living body, by the peculiar structure of its nervous system, establishes a closer connection of the greatest fineness *where* and *as* it is best adapted to the operations of life ; but each single part, from the narrow working sphere of the forces which are chiefly active in it, coheres with but few of its next neighbours so closely that every state of the one must be communicated to the other with perceptible effect. Hence single groups of parts are left free to develop their form, their texture, and their composition with a certain tenacious

independence, and, undisturbed by passing fluctuations of the rest, to execute operations on whose regular course the coherence of the whole depends.

It is now hardly needful to enlarge on the peculiar results that are brought about for life by the application of chemical processes. The celestial motions are those of uniformly existing masses; mechanical skill does indeed make use of chemical forces to bring about the moving impetus, but it at the same time allows the kind of action to be determined by a rigid framework of unvarying parts; life alone presents a development, the subjects of which not only increase in bulk, but during their activity undergo a previously determined alteration of nature. In this case therefore, far more properly than in the other, every subsequent result is conditioned by the immediately preceding state In the machine too the subsequent operation is successful only in virtue of the prior one, that moved the parts of the fabric into the required position; but there remain alike in the one case and in the other the same efficient masses and the same forces; the action of the whole is hence limited to a perhaps highly complex, but a recurring and not increasing series of results. In the living body every chemical change that takes place sets to work forces not before in existence and brings others to a pause; thus at each moment there is laid for subsequent development a new foundation, such as gives occasion sometimes for a continuance of prior states, sometimes for an evolution into new ones, sometimes by a combination of both, for expansion into a far fuller manifestation of character and activity.

We must keep in view this gradual laying again of foundations, if we will understand the way in which the organism originates from its germ, without requiring the continual intervention of a fashioning power. Experience indeed makes it so highly probable as to be almost certain that in the present course of Nature no organism is the direct product of a combination of elementary substances; only in propagation by means of what is similar is the chain of life carried on, holding together continuously in the seed and the egg the definitely adjusted sum

of parts from whose excitation by external stimuli the series of vital phænomena may be again evolved. Even this tradition, however, often seems to us too faint, this point of view too simple, to let us suppose that in it alone are contained the conditions of the subsequently renewed development. Then we forget that it is really a long process that leads through countless agencies from the invisible germ to the perfect flower and fruit, and that at each stage of this course possibilities arise, which were absent in the preceding one. We are very far from being in a position to write a history of these transformations and of the laws according to which they actually succeed one another in a definite series in the development of life; but we are able in some measure to take account of the resources of which Nature can here avail herself, and through whose agency the great chasm between the commencement and the termination of the development is lessened by division into a number of intermediate stages.

Even if nothing at first lay before us but a fluid with its ingredients mixed in accurately fixed proportions, without any solid germ being yet distinguishable as the basis of the infant organism, the first chemical influences of the environment might yet be sufficient to produce this germ. One constituent would become detached by coagulation, and not only is there a definite form corresponding to the nature of each substance, which it assumes when left to itself, but, under certain circumstances, the maximum size of the figure may be determined which its forces will allow of its holding together. Accordingly this solidifying substance could fall into a fixed number of parts, occupying the relative position which sets them in equilibrium with all the actual conditions. Whether, however, the first solid germ of the subsequent development be given thus or through the existing structure of the seed,—we need nothing more than a slight difference of its arrangement in different directions to enable us to see how the development of the next stage, bringing to bear identical external stimuli on these variously constructed parts, increases their dissimilarity, and thus prepares for the rise of

various and widely differing forms from an apparently similar beginning. Each chemical transmutation that takes place will, first of all, involve the arrangement in space corresponding to the alteration in the substance; but every change of conformation thus brought about will likewise help to condition the subsequent effects of the stimuli, by preventing them from reaching parts now rendered inaccessible, concentrating them upon others left open, and so prescribing tolerably well marked lines to the subsequent development.

As, however, every chemical composition entails a fixed shape, so also the acquired shape brings about new habits of chemical action. In our workshops we seek to prevent the vessel from sharing in the chemical vicissitudes of its contents; in the living body the tissues do not form merely an unconcerned stage on which other substances come into reciprocal action, but, by their degree of density, their form, and the forces of attraction or repulsion which they bring to bear on their content, they exert their share of influence on the course of the transmutation of substances. By means of this gradually advancing development of the vessel in which they are contained, the nutritive fluids are elaborated for the production of more delicate compounds, and a more and more definitely marked field is opened up for the action of external vital stimuli. We must not despise any of these co-operating elements, and, fully as we are convinced that none of all these processes of vital evolution can escape from the universal laws of physical and chemical action, we can have but little expectation of explaining with these laws as hitherto ascertained the immense complexity with which the constant changes in the form, the blending, and the mode of access of the external stimuli here act on one another. Least of all can we venture to hope that human art will ever succeed in producing by imitation any essential constituent of a living body. For, while it is certain that no living product could have come into being by means of any other forces than those of the general course of Nature, no less necessary to its origin was the fixed adjustment of these

forces and their subjects, which could alone determine the character of the subsequent product. This adjustment we never see spontaneously reproduced; Nature has entrusted its maintenance to continual transmission by propagation. Any hope of artificially creating life anew, would imply the presumptuous belief that with fewer and more insufficient means and in shorter time we could produce that which Nature herself can execute only by means of a long course of development and the introduction of forces already organically systematized.

Now the growing capacities of the different parts of a system thus developed come to an end at different times; some have gone through the series of transformations of which, under existing circumstances, they were capable, while others are still in the middle of their course of development. Thus the stem of the plant, as it turns to wood, gradually withdraws from participation in its further development, but it continues to serve the whole with its physical properties of solidity and rigidity, assigning to the parts that have remained mobile the stage of their activity. Thus in endlessly various ways the development, as it goes on, makes for itself new supports, from which it extends further; but at the same time it thereby creates for itself limits which confine the possibility of action to definite forms, and thus bring about either the persistence of a prevailing type of growth, or the final expiry of life and the complete extinction of all opportunities of further work. We find all these characteristics, that compose for us the image of a self-contained development, connected with the employment of chemical affinities, and the application of molecular forces that act only under condition of contact.

§ 3. The life of the plant, the most distinct example of this development, has as its sole task the perfecting of its own form. Did the outer world yield it substances all ready to be made use of for that structure, it would have nothing to do but to absorb them, and there would be no necessity that in return it should before its total destruction

render back substances to the outer world; those once absorbed would form its abiding constituents. But it does not find this ready material, and is compelled to produce it from its elements. During this process one part of the used up material may drop out as an unprofitable incidental product and be restored to the outer world. Other substances, such as the great bulk of the water absorbed, circulate through the vegetable structure, not to become part of it as constituents, but, as means of detachment, to secure the mobility of the more active parts; they too return to the outer world after they have done their work; lastly, much that was valuable at certain periods of growth, by becoming dried up or withered, is detached from the whole after the fulfilment of its office. But we have no reason to suppose that substances which have once entered the solid structure of the plant, are subjected to a repeated renewal. The animal body, as is well known, is different in this respect, and, though all doubts as to the extent of its transmutation of substance are not removed, it is yet certain that a great part of its bulk is constantly engaged in decomposition and renovation by fresh accretions. This fact, into the extent of which we shall hereafter inquire, we have meanwhile to consider in its significance with regard to that feature of animal life with which it unquestionably stands in the closest connection, namely, with the operations executed by the animal body without any fixed law of recurrence and succession, in addition to the development and preservation of its own form.

None of the countless impressions with which the outer world is continually besieging the senses at random, and the conversion of which into sensation is the task of the animal soul, can be received by the body without the receptive organs undergoing a change of the state in which their active parts are at the moment of rest. None of the equally numerous movements by which the internal life of the animal reacts on these stimulations, can be performed without the great change in the position of the limbs being

prepared for by a countless multitude of changes in the relative situation of their minutest particles. All these processes, seeing that they take place not like predetermined states of development in a systematic sequence, but outside of all mathematical laws, can be regarded as nothing else than disturbances of the relations imposed on the constituents of the body by the type of its species. Did we choose to indulge in speculations that have no demonstrable connection with reality, we might perhaps imagine the bodily structure so designed that its organs, after each of these disturbances, returned with perfect elasticity to its former state. But we find this supposition but slightly justified by experience. The cohesive forces of the parts of solid tissues are indeed strong enough to overcome temporary displacements. The exhaustion of the senses, on the other hand, the fatigue of the muscles, which after a certain duration of uninterrupted labour inevitably supervenes, are enough to convince us that this, though perhaps conceivable, does not at any rate actually occur, and that, with such means as are supplied by the ordinary course of Nature, life could not form any organs that would not be gradually worn out by the reciprocal action involved in the stimulations designed for it. But it is one of the ends of life to obliterate almost everywhere the traces of prior impressions, and to bring back the organs to a state in which they shall undertake newly-imposed tasks quite unshackled and unweakened by the kind and amount of the operations which they have already performed. The question is, how this need of a constant repair of capacities can be most simply satisfied.

Instead, however, of imagining remote possibilities, such as some overlooked circumstance would too easily convert into impossibilities, we proceed to point out in the unremitting *change of material* the simplest means of satisfying this need, and of its actual employment we are, moreover, informed by experience. For life to take perishable materials into its service, and embody its phænomena in ever-changing masses, was the means by which it was most easy to maintain a

normal condition in the struggle with incalculable disturbances. Should slight and delicate impressions of the outer world possess a power of stimulating the organs of the body, in particular should minute distinctions of external stimuli be separated for our apprehension by perceptible differences in their effects, or movements in every possible gradation of strength, duration, and velocity be capable of being executed, the internal states of the instruments adapted for all these operations would be strongly susceptible of injury. This necessary property was bound up with the transient nature of the chemical composition, and living Nature escaped from this consequence not by withholding through higher forces the disturbed substances from the decomposition to which, by the universal laws of chemical processes, they would naturally fall a prey; it allowed the disordered to perish, while holding fast the necessary foundations for the restoration of that which had been used up.

But not only that which has been destroyed by its activity, also that which has remained inert beyond the period during which its composition could subsist, is left to its fate, and advances towards decomposition only less swiftly than the former. Through this proceeding Nature avoids the necessity of meeting each single disturbance with a remedial reaction suited to its nature and degree, and thereby it escapes numerous disadvantages, that seem hardly separable from any other procedure. Besides, it could display reactions of such a kind only if the disturbance itself brought them on with mechanical necessity, and were thus counteracted by a part of its own consequences. But such a reaction, bursting forth only at the moment of need, would recur as irregularly as the disturbance by which it was excited; it would therefore itself be a new disturbance, such as would not occur, except under especially favourable conditions, without injury to the connection of the whole. The case would be similar, if the constituents of the body were in themselves unchangeable, and only became decomposed when shattered by the impressions of external stimuli and their after effects, requiring restoration immediately

after such stimuli, but needing none during the intervals between them. If, on the other hand, the sum of the effective parts is engaged in a perpetual motion of flux and reflux, this current is always carrying off the *débris* of decomposition, and constantly laying new foundations for further action, and thus guards the vital whole against the sudden and violent convulsions that any defence improvised at the moment of need would entail. It even ceases to be needful to produce for every disturbance the remedy corresponding to its kind and degree; instead of the open conflict against the very various effects of impressions, life practises the stratagem of perpetual retreat, for by working from the first with varying instrumentality it gives up everything which, shaken by external assaults, only rushes more quickly towards the decomposition for which it was at any rate destined. Of course we now find in the living body express provisions for causing reactions to succeed impressions at particular moments, which apparently are adjusted to the duration, the kind, and the degree of these stimulations; but even the efficacy of these means, of which we shall have occasion later to speak, is after all only rendered possible by this continual and general flux of the change of substance.

On closer consideration, however, we have no demonstrable right to call this flux quite general, and it is to exaggerate the perishableness of the animal body to suppose that we can assign periods within which its whole bulk has undergone transformation by change of material. The substances produced by organic chemical processes are not all so easily disturbed in their composition as (misled by the striking sight of the decay of some) we are apt to imagine. We are familiar with the durability of wood, bones, sinews, and skin, and make manifold use of it; we are familiar, on the other hand, with the often speedy effect of weather on stone, which, it seemed, would have been much more durable. It is not quite decided whether the constituents whose coherence is strong undergo and require during life any considerable amount of repair: it is even doubtful whether many others, which we see

rapidly decomposed after death, would not be preserved for a long time during life in virtue of the more favourable circumstances under which they then exist. Lastly, in regard to many substances we know not the kind of renewal which they undergo, and are ignorant whether individual and complete elements of form, such as the fibres of the nerves and muscles, are preserved as wholes and undergo perpetual renovation only in their infinitesimal particles, or whether they too under certain circumstances fall to pieces and are replaced by perfect ones. Least of all, finally, can we determine the amount and velocity of the waste and renewal undergone by particular structures under the ordinary circumstances of healthy life. In spite of this defectiveness of our knowledge we can, however, fill up the picture of the change of substance by the certainly correct supposition that the decay and interchange of the constituents, should it be universal, at any rate proceeds with very various degrees of velocity, and that at every moment a considerable stock of constituents maintains itself with a fixed or but slowly changing mass in permanent modes of combination, and uninterruptedly presents a regulative nucleus for the new formation of the other constituents which circulate around it with greater capacity of decomposition and more rapid changes.

It remains for the future to decide whether this current has a perfectly motionless ground, and to what extent. Our ordinary idea is, of course, that the parts of the body are like the stones of a building, which, by their unceasing forces and their adjustment given once for all, perform their function in a state of rest, and need motion only in order to overcome the disturbances which threaten the whole, by an elastic return to their former positions. But it may very well be that the change of material serves life not only by continually restoring the old fabric, so that it might be dropped if there were any means of preserving the organic form without it; that, on the contrary, the processes of constant forming and reforming, themselves yield those motive shocks which life requires for the fulfilment of its development—just as the burning coal—

not through what it was or through what it is to be, but through the motion of the transition itself, the burning—generates the heat that affords the first impelling agency for the action of the machine. But we are very far from being able to carry out this thought further. So accustomed are we in processes of nutrition and excretion to think only of the acquisition or getting rid of useful or pernicious material, that the question has as yet been little raised whether here the process itself and the excitation of forces effected by it is not sometimes of greater value than the shifting of the substances themselves, which here and there perhaps form only the indifferent material, in whose elaborations those excitations arise, and can be maintained. Only in one case has even science as yet adopted this mode of thinking; it has indicated the temporary appropriation of a great multitude of substances by the organism as means to the production of heat, which originates in their chemical alteration, and through the communication of which to the tissues of the body the essential task of the absorbed masses is discharged.

§ 4. After we have thus undertaken to indicate the significance for the general ends of life of this perpetual transformation of the body, we would fain complete the picture by a description of the definite chemical processes from whose systematic interaction the regular change of material proceeds. The spirit of inquiry has, with the utmost ingenuity and industry, in recent times applied itself to these questions; but the complexity of the phænomena and the difficulty of investigating them is so great, that from the multitude of valuable individual discoveries that must be overlooked in our general survey, hardly more than a few more comprehensive results have been gained, which can defy any fear of repeated alteration from the farther advance of investigation.

So far as we are acquainted with organic life, we find figured masses everywhere composed of various chemical combinations of carbon, hydrogen, oxygen, and nitrogen. None of these peculiar combinations can be proved to be pro-

duced spontaneously, without an organic germ or some remnant of decomposing matter forming the first nucleus through whose assimilative power the substances everywhere present in the atmosphere might be condensed into a new growing structure The plant is able, with the means afforded by its organization, to combine oxygen and hydrogen in the proportions in which they form water, with various quantities of carbon, and thereby to produce a series of substances, the carbo-hydrates, from one of which, cellulose, are composed the delicate walls of its cells and the whole framework of its structure, while others, as sugar and starch, are contained in it in solution or deposit, as means of further growth. The conversions of these substances and the increase to which they minister, seem, however, to be possible only with the co-operation of another group of chemical combinations, which add nitrogen to the former ingredients, and, on account of the resemblance of their character to animal albumen, are comprehended under the name of albuminous bodies or protein. These occur, like the fatty ingredients of oils, widely diffused in the vegetable kingdom, and by means of the vegetable nutrition to which, directly or indirectly, all animal organization is limited, they pass over into the animal body, whose vital processes are incapable of condensing the simple elements which external Nature affords into organically available combinations. Thus the vegetable kingdom, in this too a preparatory stage for the animal world, offers to the latter its constituents in all essential particulars already formed, leaving to the peculiar activities of each species to elaborate them according to its needs.

The bird about to be hatched must have produced out of the albumen, and the albuminous and oily ingredients of the yolk, all the tissues as yet contained in its body; from milk, which, along with albuminous and fatty substances, contains further a considerable quantity of sugar, the young mammal, long limited solely to this form of nourishment, must be able to produce the various structures required by the plan of its species; finally, the blood, in which all these sub-

stances recur, must be the source of supply of the continual reparation of all the parts of the tissues that are consumed by use. Hence the albuminous substances are undoubtedly to be regarded as the foundation of all those nitrogenous compounds which we find approaching one another in the quantitative proportions of their composition in flesh, cellular tissue, cartilage, hair, feathers, horns, while in appearance, hardness, solidity, and ductility they differ widely from one another. But it would be vain, in the present state of the investigation, to attempt to trace the chemical processes by which the common material is worked up into each of these peculiar forms. Those parts retain with least alteration the original character of albumen, which most energetically serve the ends of the organism by their own activity,—the axis cylinder of the nerves, the substance of the brain. In respect of composition the fibrous substance of the muscles is also similar, but its destination for vital contractile power seems to have necessitated a different disposition of the infinitesimal particles, or an alteration of the structure which is still inscrutable by us. A further transformation is to be seen in the tissues which become glutinous by steady boiling, and which are used to form the cartilaginous and dermic bases, partition-walls, and ligaments, which support, enclose, and unite the vitally active parts. The last and most distant links in this chain of substances are the tougher, drier, horny and feathery fabrics, which develop themselves with the utmost variety of form especially in outer coverings. None of the carbo-hydrates, which, by vegetable nutrition, are conveyed to the animal body, has any share in the formation of the tissues in the higher species of the animal kingdom; their office may consist in the generation of heat, which they effect by means of their slow combustion, with the inhaled oxygen, and in a number of subsidiary operations, with which they take part in the chemical transformations of the other substances. Of greater importance seem to be the fatty elements, which are not merely useful from their physical properties in keeping up

heat and diminishing friction, but necessary as essential elements of the chemical composition of some structures and the interaction of others Many other inorganic substances —metals and salts of the alkalis and earths—are along with the albuminous bodies used by the organism to establish particular physical properties of its tissues, others seem only to traverse it, in order to exert favourable influences of various kinds on the course of the change of substance. If we are little acquainted with the progressive formation of the constituent parts of the body, we are equally in the dark as to the retrogressive conversion by which they are gradually prepared for death. A very large number early attain a stable equilibrium of internal composition, and these structures, drying up, are thrown off by the body in largish masses, and without decomposition of form, *e.g.* the hair, the nails, and the covering of the epidermis, which is constantly scaling off Others, through the activity of peculiar organs, undergo a transformation still little understood, after which they leave the body as complex structures, such as mucus and gall, and the organic constituents of urine, partly as they are, partly dissolved in watery media; another very considerable residuum of this decomposition, so little known in detail, is carbonic acid, which is ejected by expiration in the form of a gas, united with aqueous vapour. Among all the individual substances that circulate through the body, oxygen, perhaps, has most to do in gradually dissolving the union of the elements in the organic constituents by its preponderant affinity, and bringing back their originally varied composition to simpler forms, more resembling those of inorganic matter, in which the substances, having become more soluble, as they fall to pieces, at last quit the limits of the body. If in former times oxygen was looked on as the special awakener and bringer of life, we may now, without denying that its powerful interference, even as a generative force, can set up conditions of vital activities, find another and an equally important part of its functions in the power of slow destruction with which it removes the obstacles to life, dis-

missing, by more complete decomposition, the masses that have become unfit for use from among those which are still vigorous.

Lastly, a peculiar importance for the sum of the vital operations is possessed by water, which we find circulating in extraordinary quantities through plants and the animal body. The great proportion of chemical interactions are determined by it as a solvent; on its fluidity depends the possibility of the circulation and of the uninterrupted distribution of nutritive material; on its capacity to absorb, to conduct, and by evaporation to limit heat, depends the equilibrium of temperature requisite for the continuance of the operations of the living body. No less essentially does it enter into the compounding of the organic constituents; from its presence, and its peculiar affinity with them, the animal tissues acquire that moisture, and consequently that pliability, elasticity, and ductility, by which they are distinguished alike from inorganic matter, and from their own friability and rigidity after they have become dried. In no inorganic substance is the relation of water to the solid part of quite the same peculiar kind which we find here, and which allows us to speak of juices in the living, but never in the lifeless body. The crystallizing salt, after having made over the greater part of its solvent to evaporation, and absorbed a smaller quantity of the water into its chemical composition, appears dry, and its particles have taken up fixed relative positions. A part of the surrounding atmospheric moisture may, indeed, become hygroscopically condensed in it; but this absorption of water only disturbs its adjustment, without the separated parts having passed through that state of tough softness and elastic ductility acquired by all the substances used for the proper structure of the animal body through their peculiar affinity for water. In this way, doubtless, are determined the special shaping impulses of organic Nature, which are so widely different from the rigidity of crystallization, that on the whole but few organic substances are capable of this kind of form, and those which do actually exhibit it are

by their very receptivity rendered unfit for the constructive needs of the living body.

§ 5. We are acquainted with no organic juice capable of growth that presents an absolutely homogeneous fluidity, and is without microscopically small punctiform granules, the formation and composition of which cannot be traced further. They can have originated only from the coagulation of the fluid elements, and they increase either by the continued accretion of homogeneous coagulating masses, or from the already detached granule collecting about itself through chemical elective affinity other substances different from it. The increase of this nucleus, whether homogeneous or consisting of different chemical combinations, never exceeds very small microscopic dimensions, but even within these limits a second formative process takes place, that of the delicate, transparent structureless skin, that forms round the nucleus, and with it produces the closed figure of a cell, with its interior filled with fluid round the nucleus. In what manner this delicate membrane is formed by the forces of the nucleus itself is not clear; but the cell itself,—in plants frequently the scene of vigorous movements, in the course of which its granular contents are carried about,—though presenting in the animal no such striking phænomena, remains a living centre of chemical reciprocal action with the surrounding fluid, by whose dissolved constituents its enclosing membrane is permeated. In consequence of this mutual action a gradual alteration takes place in the composition, the internal adjustment, and in the shape of the cell, and instead of its original round form it comes to have that of a number of longish, unequal, ramifying bodies, the manner of whose origination is still as obscure as their value for the vital operations. The plant retains the original cellular form to a greater extent than the animal organism; in the organs, mostly glandular in structure, that serve for nutrition and transmutation of elements, the cellular form of the infinitesimal particles of the tissues is still distinctly perceptible, and their perpetual dissolution and renovation are partly certain, partly probable; but the peculiar needs of

animal life have brought about a new form with its numerous applications, that of the fibre, which does not everywhere originate even secondarily from a series of cells. We find the fibres partly arranged in parallel lines without ramification, as in the nerve trunks and the muscles, the bundles being then united by commissures and sheaths, partly woven together into solid and firm twists, among which appears as specially important the form of the hollow tube of circular section.

Lastly, from combinations of these relatively simple forms of tissue proceed those composite formations which we are wont to comprehend under the name of organs, and which unite the physical and organic operations of the single tissues into the whole of a definite function. In most organs we find, besides a number of membranous sheaths and ligaments, that secure the connection of the whole and the relative situation of the particular constituents, vessels and nerves traversing, in very various proportions of quantity, a mass fundamentally consisting of cells. The name of parenchyme (poured between) applied to this must not blind us to the fact that it is properly the efficacious element of the whole compound, while the vesicular channels and the nerves merely convey to it the material that is to be worked up and the stimuli to work, or carry off to the rest of the organism the material product of its operations and the serviceable excitations proceeding from its activity.

# CHAPTER V.

## STRUCTURE OF THE ANIMAL BODY.

The Bony Framework—The Muscles and the Motor Nerves—The Vascular System and Circulation of the Blood—Respiration—Nutrition and Excretion.

§ 1. WHILE laying down the general points of view which we desire to fix for the investigation of vital phænomena, we were at liberty to assume that natural familiarity with these and with the structure of the living body would meanwhile supply the place of concrete descriptions. Even now, in attempting to give a description of the particular processes and operations with which the various instruments of life work on one another, it is not our intention to follow out all the trains of thought suggested by the consideration of the human body, the proper subject of our inquiries. We shall contemplate it neither in the beauty of its shape nor in the peculiar significance of its forms, which present in absolute perfection a type of structure carried through half of the animal series. Leaving all this to future occasions, we shall content ourselves with bringing into exclusive prominence, in the connection of our present reflections, the instruments by which the body of man—in this respect identical with the higher species of animals—executes the rotation of its vital operations.

Concealed everywhere beneath covering sheaths of greater or less strength, the bony framework forms the firm outline of the bodily shape. Nature has formed from a basis of transparent elastic cartilage and of the phosphate of lime which is imbedded in a peculiar manner in its tissue, those durable supports which, in the moist state which is theirs during life, offer the advantages of rigidity without too great brittleness.

On the outer surface smooth and hard, within in some places of denser, in others of more delicate and spongier texture, according to the end to be attained, this bony structure presents the most various forms, here hollow tubes of considerable length, there flat plates, again variously curved and bent blades, all so arranged in couples that a vertical section of the body through its median plane would divide the bony framework into two quite symmetrical halves. With their indented edges fitting into one another, mussel-shaped curved bones combine to form the firm arch of the skull, the strong covering of the brain, immoveably fastened to one another or permitting only imperceptible deviations, which can at most somewhat break the violence of rude shocks. To these adjoin, firmly growing to them in front and below, the bones of the middle of the face, the lower part of which is completed by the moveable under-jaw. From the interior of the arch of the skull to its outer surface lead both open cavities between the edges of several bones, and also closed channels of greater or less width, that traverse the substance of particular bones, and allow free passage to the vessels and nerves. Through a larger opening on its lower surface, the occipital foramen, the cavity of the skull is connected with the long, broadish channel of the spine, which is loosely filled almost to its lower extremity by the thick strand of the spinal cord, as an immediate continuation of the brain. A good many single bones, of somewhat the form of a short cylinder, are here superposed so as to form a long column, and bound together very firmly and durably by flat elastic cushions inserted between the adjacent surfaces of each two. Hence only a very slight movement is possible between two adjoining links of this chain, but yet the considerable number of them allows to the whole of the column, by the summing up of these small movements, considerable curvatures in wide and large arcs By this construction of the whole from a multitude of smaller parts, strength of connection is united with sufficient mobility, and at the same time the injurious effect is avoided which sharp angles in this bony framework would

have on the delicate tissues, whose protecting receptacle it is intended to be. For from the bony cylinder just described, *i.e.* from each single vertebra of the spine, proceed towards the sides two bony arches, which meet behind like a ring, leaving between them an open space of a roundish heart shape. With these openings superimposed on one another like the vertebræ from which they spring, these single rings consequently circumscribe a long hollow channel, without wholly enclosing it. For, as they are of less height than the vertebræ, two adjacent rings do not everywhere touch one another, but leave free intervals, and only at three points are united together by connecting projections in a manner that admits indeed of movement, but of movement limited by firm ligatory flaps to a very narrow range. Thus the vertebral column presents the appearance of a long cavity, whose front and far thicker wall is undivided, while the thinner side and back walls are interrupted by many openings. In the interior of this space, which is lined by smooth membranes, the spinal marrow is attached in a floating manner such as best wards off injury from the frequent curves and distortions of its bony walls.

In front no bony structure joins on to the highest of the vertebræ, those of the neck; the twelve following, those of the chest, support in front, corresponding to the vertebræ at the back, the much wider bony arch of the ribs, that, with their posterior extremity attached (to some extent moveably) to the vertebræ, meet in front in the flat breast-bone. They thus form the side limits of the thorax, whose upper opening is contracted only by the less width of the first vaultings of the ribs, and whose lower and wider expanse is separated from the cavity of the abdomen only by the muscular diaphragm, and not by any osseous formation. The five next, the lumbar vertebræ, like those of the neck support no ribs, and only, from their especially strong and massive structure, fix, at the back only, the height of the abdominal cavity, whose side-walls are formed entirely of soft textures. The lower wall of the abdomen, on

the other hand, designed to support the weight of the bowels, is formed of the great osseous round of the pelvis, which, starting from the lowest spinal vertebræ that grow together into the broad os sacrum, sends out broad wings on both sides, which, sloped off from above and without downwards and towards the inside, and united in front by lower bones, leave between them a pretty considerable space closed only by soft tissues.

Finally, to this framework, which, from the slight mobility of its parts, is liable to but slight alterations of form, are attached the osseous tubes of the limbs, for which the mode of their ligature affords the greatest facilities for changes in situation and shape. The shoulder-blade, kept in its place at the back merely by soft tissues, in front moveably connected through the collar-bone with the breast-bone, supports at its upper and outer extremity, in a flat joint-cavity, the head of the upper arm, while the outer surface of the pelvis supports below, in a deep round joint-cavity, the head of the thigh. The nature of their joints permits to both bones movements in every direction, the extent of which is limited only by collision with the environment; both, on the other hand, are so connected with the bones of the lower arm and lower leg that the latter, in respect of them, can move only in a single plane. But both these relations and the further structure of the hands and feet, by the delicate organization of which the human frame is distinguished from that of all the lower species, we defer for later consideration. Let us merely add that numerous sinewy ligaments unite all the bones, moveably fitted into one another, that at the joints special cuticular capsules surround their heads, which are turned towards one another and lubricate the surfaces of the joints with a slimy secretion, and we shall have before us a complete picture of the rigid framework, whose parts are then singly moved by the vital activity of the muscles.

§ 2. The numerous gaps and intervals left between the particular bones, are filled up or covered over for the most part with the flesh of the muscles, and the skeleton, clothed in its

muscular sheaths, thus almost completely fills the external outline of the bodily form. Extremely thin and delicate fibres, invisible to the naked eye, unite, running parallel to each other, into the finest threads, which, again in like manner massed into thicker bundles, are familiar to us as the constituents of the flesh. United groups of these flesh-fibres, co-operating in one and the same operation, traversed by numerous capillary blood-vessels, and divided from homogeneous or dissimilar adjacent tracts by tolerably distinct envelopes of cellular structure, form the individual muscles, which, without closer mutual connection, and solely in consequence of their position adapted to common ends, become combined in larger groups and systems.

Under the influence of various stimuli the muscles are capable of contracting longitudinally in the direction of their fibres. While each one of the latter contracts by a part of its length, frequently very considerable, in consequence of an approximation of the particles still little understood, the transverse section of the muscle is correspondingly enlarged and its density at the same time slightly increased. If we suppose a bundle of fibres fastened by its two extremities to two moveable parts, it will seek by its vital contraction to bring both nearer each other in a straight line, and the force with which it executes this operation will depend on the number of efficient fibres, *i.e.* on the thickness of the bundle or muscle, while the amount of the approximation or extent of the produced movement depends on the other hand on its length. Where, therefore, the limbs, without describing great arcs, have to execute vigorous movements, or retain positions in which they must resist a considerable weight, we usually find short, thick muscles, consisting of a number of fibres, applied; on the other hand, where a movement through a considerable space, but without the exhibition of any particular force, is intended, longer and often thinner muscles are stretched between the moveable points. Yet there are exceptions to this simple practical rule. For only a few muscles extend between

points whose approximation in a straight line is possible; most adhere at both ends to bones that are united together by a joint, and can move towards each other only by turning round that joint. The muscle, running beyond this, and as is required by the laws of the lever for the greatest possible effect, applied as far as may be from the fulcrum, would, as it contracted, considerably diminish the angle formed by the two bones at the joint, but at the same time fill up the opening of the joint with its condensed mass. The form of the limbs would thus undergo an alteration such as even in the arm, in which the simplest example of it would be found, but much more in other cases would be anything but favourable to the end in view in the movement made. Great variety is introduced into the application of muscular activity alike by this regard to the avoidance of changes of contour contrary to the end in view, and by other circumstances; but to trace these relations farther, even were it here possible, would yield no further advantage to our inquiry than is to be drawn from what has been already said.

It is not only here and there, in the structure of the moveable framework of the body and in the provision for its movements just described, that we find analogies with the modes of procedure made use of by mechanical skill. But the total of these operations is altogether and with the utmost variety and delicacy of execution founded on the instrumentality, means, and laws of which we avail ourselves in our daily attempts to invent instruments for moving masses, only with less complete success. The same rigid rods, the same junction and fastening by various ligaments, the same turning of the moveable parts by means of connecting flaps that exactly determine the possible directions of the turning, the same draw-lines together with rollers and braces, which alter the direction of their working according to necessity and convenience: all these expedients we find equally in machines and the living body; and we find them nowhere else in Nature. Forces traversing space guide the stars in their courses by invisible threads; mutual pressure of particles, tension of

masses evaporating or increasing by suction, lastly chemical attractions and the immediate counteractions of the substances in contact in space, are the forces at work in meteoric phænomena and vegetable life. The orderly and harmonious system of mechanical arrangements under the law of the lever first appears in animal life, and just where its special distinctive task has to be accomplished,—change of figure and place. Thus so little is life averse from the use of means that we are wont to term contemptuously artificial or mechanical contrivances, that on the contrary its articulation may be held to be the prototype of the machine, given by Nature herself as the most perfect type, yet only given here in this her most perfect product. There is, however, one point in which life surpasses all that we can do to copy it, viz. the fact that the spring of this whole array of means lies in the peculiar inherent contractility of the muscles, while our mechanical skill can only shorten the draw-lines by rolling them round cylinders and wheels, which again require other instruments to move them.

The muscles receive the impetus to contract from the nerves extending between them and the brain and spinal marrow. The microscopically fine nerve-fibres, spun out to a great length and consisting of a delicate transparent sheath and viscous medullary content, are, on the way from the central organs to the moveable limbs, formed within a common case into largish bundles, without being divided or blending together on their passage. From these thicker trunks smaller bundles proceed, according as they are required for convenience of distribution in the neighbourhood of the muscles, till the single threads are finally lost in the fibres of the muscles, and separate now for the first time into fine ramifications. In newly killed animals pressure and pulling, chemical agencies, and the influence of electric currents applied at any point in the course of a nerve, excite contraction in the muscle to which it runs,—a proof that the equilibrium of the minutest elements of the nerve-substance is so unstable as to be disturbed by many kinds of shocks, and easily to

propagate its disturbances from point to point. Recent minute investigations have made it credible that an alteration in its electric state running quickly, though not instantaneously through the nerve, is the process by whose effect on the muscles the contraction of the fibres is effected While important in regard to the special inquiries of physiology, the decision of this question would yet add nothing essential to the general sketch which we have here in view; it is enough that some change in its physical condition, advancing from point to point in the nerve, occasions either a temporary twitching or a permanent tension of the muscles dependent on it.

§ 3 The irritability of the nerves and muscles is permanently maintained only so long as both are acted upon in their natural positions by the circulating blood. In order that this stimulating nourishment may extend everywhere, all the limbs are traversed by the vascular system, resembling a finely ramified network of radicles. Its strong main branches, distributed through the larger cavities of the body, are divided by an oft-repeated dismemberment into a closely intertwined network of the finest tubes, running more or less abundantly round the minutest elements of the tissues, and conveying to all in a ceaseless current the nutritive blood-fluid. This motion also has been ascribed by fanciful theorists, in open contradiction to facts easily observed, to a peculiar mysterious power of the fluid, which seeks and chooses its paths in the service of life; we shall, on the contrary, find that it, like the motion of the limbs, is based on the finest adaptation of the very means, which in such theories are regarded only as coarse and wretched aids to human craft.

If in a circular channel, filled with fluid contents and enclosed by elastically dilatable walls, a single spot were surrounded by fibres that could be contracted, each contraction of this spot (which we shall forthwith designate as the heart) would drive the fluid to both sides, and two waves would spread on the right and left by means of the momentarily expanding and then elastically contracting arms of the circular vessel. If a valve were placed in the interior of the vessel on

the one side of the heart, so that it would be closed by a current from the one side and opened by one from the other, this would permit instead of the double wave only a flow of blood in one direction through the whole circuit of the vessel, and this returning to the heart from the other side, would open the valve in order to be again propelled in the same direction as before by a second contraction. If we suppose that the circular simple vessel divides at some distance from the heart into several branches, which by fresh ramification part again into an indistinguishable multitude of the finest tubes, that further, these very fine channels collect again into somewhat larger trunks, before finally discharging themselves into the heart in two main currents, we have set forth in this simple representation the changes which we must bear in mind in order to have an idea of the nutritive vascular system. The heart does really consist of a strong muscular bag, whose energetic contractions drive the contained blood into the main artery of the body, the aorta, one of the arms of the large vascular ring, which is at first undivided. A cuticular valve in the heart, closed during its contraction by the pressure of the blood against it, prevents the escape of the blood on the other side of the way, and forces it to take its course in one direction through the large trunk into the farther ramifications of the arterial system. The blood always finds the vessels into which it is driven already filled; but on its way from the heart, while it is pouring in at the entrance to the aorta, it pushes back the wall of it breadthwise and lengthwise, and for a moment finds room in this greater extent of the dilated vessel. But the elastic wall of the vessel, formed of strong and tough circular and longitudinal fibres, struggles with great force to contract to its former dimensions, and thereby drives on along the same path the excess of blood by which it is expanded, the proximate part of the vessel undergoing a similar expansion, from which it immediately rebounds. Thus, advancing quickly along the whole length of the vessel, a wave of expansion arises — as can easily be made perceptible by filling the intestine of an animal with water so as to

dilate its walls sufficiently, then closing both ends, and exerting on the one a sudden pressure. We know this undulatory movement of the arteries under the name of the pulse; it becomes less distinct in the smaller branches, and disappears entirely in the widely extended network of the capillary vessels. The blood flows through these in a quietly even current, in order to return without pulsation to the heart by the again collected larger trunks, the veins. Since in the aorta fluid meets fluid after each heart-beat, various intermixtures will take place, and a part of the newly entering blood may be driven to a greater or less distance by that already there, while another part of the new blood pushes before it a part of the old. The path described by a single particle of blood may therefore be very various; only in the middle part of the vascular passage will it be uniformly progressive; at the entrance to the aorta the circumstances already stated may make it very irregular, in the capillary vessels many little accidental shocks from without and other incidents may convert it for a long time into a fluctuating progression and retrogression through the variously communicating paths of this labyrinth. Hence the estimates according to which the blood is supposed to circulate through the whole system of the vessels in about a minute, while the heart makes from sixty to eighty beats, may indicate the average result of the whole circulation, but not the motion of each single particle.

The larger vessels, arteries and veins, divided by thick impenetrable layers of skin from the substance of the parts through which they run, are merely channels in which the flux and reflux of the blood take place; the capillary vessels alone, with their thin delicate walls, passing through and twining round the minute elements of the tissues in an exceedingly fine and multiplex ramification, form the scene of the transformation of substance. From these, by a perpetual process of osmosis, the fluid constituents of the blood pass into the intervals of the texture, and in exchange the dissolved remains of the used-up and decomposed corporeal substance press into them, in order to be carried away to the various organs of

excretion in the current of the blood. We are very slightly acquainted with the kind of chemical transformation undergone by the tissues in course of time from these operations, and just as slightly with the order of succession of the forms into which they are converted by advancing decomposition, till the final process when, having become perfectly soluble and more similar in their chemical composition to the simpler inorganic substances, they are ready to be dismissed from the body. We observe only one more definite result of this activity continually proceeding in all parts of the body, viz. the formation of carbonic acid, from whose entrance into the capillary vessels the blood receives on its return through the veins that dark-red colouring which now distinguishes it from the bright-red arterial blood flowing from the heart. The larger amount of absorbed oxygen, by which the latter is distinguished, disappears mostly in the capillary vessels, and is used for the constitution of the carbonic acid collecting in the venous blood. Now in whatever manner the necessary carbon may be extracted from the constituents of the body, and by whatever intermediate agencies the carbonic acid may finally be formed, we must at all events consider this slow process of combustion going on constantly in all parts as the source of animal heat. A certain height of temperature is an indispensable condition for the possibility of vital operations. But not every part that needs for its action a definite degree of heat, is permitted by the nature of its own action to satisfy that need by vigorous change of substance. The vessels form the channels through which the heat generated elsewhere, communicated to the blood, is equally diffused over the body; and from this second use of the blood,—to be an apparatus for the distribution of heat,—particular refinements of its organization are more easily understood than from the first—to minister to the diffusion of the nutritive juices. Thus the superfluity of parts in which there is active change of substance is of advantage even to those which, on account of their smaller transformation or their less favourable situation, are not themselves capable of generating and maintaining

the requisite height of temperature; thus in particular the external surface of the body receives compensation for the considerable radiation of heat, owing to which it is constantly growing cold from its contact with the atmosphere.

§ 4. We have hitherto regarded the vascular system filled with blood as the store-room from which alike nutritious compensation and necessary heat are conveyed to the bodily tissues. This store would, however, soon be exhausted if oxygen was not continually supplied anew by means of respiration, if the existence of the parts capable of growth was not maintained by digestion, and if the remains of decomposition that have become unfit for use were not removed from the blood by excretion. Of these operations respiration first of all determines in the higher animals the development of a particular department of the vascular system, designed to free from its carbonic acid the venous blood, altered by the absorption of substances unfit for further use. This freeing is effected by means of a successful interaction with the outer air, which fills it anew with oxygen. Instead of the one heart, from which, as we formerly supposed, the arterial current proceeds, and into which the venous blood immediately returns, let us now suppose two hearts similarly constructed, on its way back from the capillary tubes the venous current first enters into the one, is driven out from it into a less extended arc of the vascular ring, and only when it flows back from that reaches the second heart, in order to be conveyed thence into the already familiar path of the main circulation of the body. The shorter arc between the two hearts forms the path of the lesser circulation, in which the blood is subjected to the influence of the air; the heart into which the venous current discharges itself is the right, the other, from which that which has become arterial issues, the left heart; both lie in the body close beside one another, though always with cavities completely separated from each other, and the blood, flowing from the right to the left one through the vascular extension of the minor circulation, returns at the end of this movement almost to the same

point of space, divided from the place of its exit only by the muscular partition-wall that sunders the two hearts that have grown together. The vascular passages along which it goes between the two points resemble in their structure those of the main circulation. A large trunk, the pulmonary artery, comparable to the aorta, first receives the venous blood, driven out by the beat of the right heart, taking place simultaneously with that of the left; it soon divides into two great branches, each of which fills one-half of the chest cavity by means of a tree-like ramification of finer and finer channels. These capillary vessels also join together into larger trunks, the pulmonary veins, in which the blood (which in the meanwhile has become of a bright red in consequence of the respiration) flows back into the left heart, to begin once more the main circulation. Through the intervals left in the fine network of the capillary tubes a second system of channels grows everywhere for the conveyance of air. The windpipe, at first simple, begins in the back part of the cavity of the mouth as a wide opening, protected against being crushed together by cartilaginous rings, and capable of being closed above by the epiglottis; descending under the skin of the throat and a thin covering of muscles, it divides, below the beginning of the sternum, into two main trunks, that, separated on the right and the left into smaller and smaller branches covered with a thin membrane, form those two great trees whose twigs are lost in the fine network of the blood-vessels, which have likewise developed into two intricate systems ramifying in various directions. A general membranous envelope, carried into but a few of the larger sections of this intimately connected double organ, is spread over each of the two ramifications, the two lungs, of which the larger on the right occupies its half of the chest cavity, while on the left the smaller encloses the heart behind, above, and partly in front, with a flap extending downwards—the heart lying in the middle to the left. The middle part of the cavity of the chest, the fissure separating the two lungs, is the space into which the aorta extends, making a curve upwards and then descending

behind, and it is from this cavity that the blood-vessels enter the texture of the lungs sideways and the two trunks of the windpipe from above.

The finest ramifications of the air and blood vessels, which are intricately intertwined, are in this case also the special scene of activity. The extremities of the delicate air-tubes spread out into little bulbs along whose sides the capillary vessels run, and are divided only by an exceedingly thin covering from the air filling the interior of these little lung-cells. By means of equally delicate moist membranes an interchange of different gases takes place outside the living body, in obedience to laws not yet fully elucidated in their details. The carbonic acid of the venous blood, which in these partition-walls is carried past the air, passes by diffusion from the vessels into the cavity of the lung-cells; the oxygen of the atmospheric air therein contained pushes its way, on the other hand, through the walls of the capillary vessels, and along with the blood become arterial from having absorbed it, is now conveyed to the left heart, and through that to the main course of circulation. The perpetual continuance of this process is finally secured by the movements of the chest, the alternations of inhalation and exhalation. In inspiration the muscles raise the moveable ribs upwards, and seek in this way to expand the cavity of the chest; but closed on all sides as it is, it cannot conform to this effort unless the atmospheric air, forcing its way through the larynx and windpipe into the lung-cells, fill the vacuum thus caused. These vigorous movements of the chest-muscles cease when inspiration has been completed, and the peculiar elasticity of the texture of the lungs expanded by the air introduced is sufficient by its efforts at contraction to effect exhalation of the air, and the letting down of the raised ribs then follows of itself. Hence only inspiration necessarily brings the vital activity of the muscles into play; expiration takes place in the ordinary course of respiration without its co-operation, though it may assist to empty the lungs as completely as possible.

§ 5. The interior of the cavity of the chest is filled by the heart, the lungs, and the great vascular trunks. Below it is divided by the diaphragm from the cavity of the abdomen, the seat of the alimentary canal and its dependencies. Flat muscular plates, whose fibres cross each other in various directions, spring from the spine, from the lowest rib, and from the lower extremity of the breast-bone, and, uniting, form the partition-wall that, extending downwards further behind than in front, and arching upwards, projects into the cavity of the chest. On it rest heart and lungs, and through a fissure left between them at the spine by their bundles of fibres, the aorta passes close beside the vertebral column into the abdominal cavity, in order soon to divide into the two great vascular trunks of the legs. The contraction of the muscles of the diaphragm flattens the vaulting of it which arches upwards, and thereby assists the expansion of the cavity of the chest for inspiration; the contraction of the muscular walls of the abdominal cavity, on the other hand, pressing upwards the contained intestines, increases that vaulting, and, by narrowing the chest, assists deep expiration.

At the back of the cavity of the mouth begins the muscular tube of the œsophagus, passing first between the vertebral column and the windpipe, then within the chest to the front and left side of the aorta, to descend to the abdominal cavity, into which it makes its way through an opening in the diaphragm. Solid food ground down by mastication and also fluids are driven between the walls of this passage by the muscles of the mouth and throat; while behind it the muscular wall contracts, the bolus opens its way step by step through this tube, whose walls, not kept asunder like those of the air-passages by elastic cartilages, are in their normal condition superimposed on one another without any interval. Helped in this manner as far as to the abdominal cavity, nutriment arrives at that section of the alimentary canal in which the chemical activity of assimilation begins. In many windings, the situation of which is determined only for particular segments, the intestinal canal passes through the abdominal

cavity, everywhere composed of an external muscular sheath and an internal velvety shining mucous membrane, both pierced by many blood-vessels, and both generally similar in structure, yet in different sections of the whole differently organized in minute details to suit different ends. Immediately after its entrance into the abdominal cavity the œsophagus extends into a spacious sack-shaped organ, the extension of which in a rounded-off bag is prolonged, without any opening, to the left of the place of its entrance, while the other longer part is continued in the prolongation of the intestinal canal. The muscular membrane of this organ, the stomach, consisting of various flat bundles of fibres, can carry backwards and forwards the chyme brought thus far, by means of its undulatory slight contractions, and thus bring it into manifold contact with the internal mucous membrane. Rich in blood-vessels, that receive an increased supply during digestion, this membrane secretes (from peculiar microscopic glandules, which, imbedded in it, run along the greater downward curve of the stomach) a product designated by the name of pepsine, the composition of which is little known, but which, in combination with the watery gastric juice containing muriatic and lactic acid, exerts the first powerfully solvent and chemically transforming influence on the nutritive contents. Here the starchy constituents of the latter are converted into sugar; the albuminous and fibrous parts of meat lose in disintegration some of their properties; the fatty substances seem to pass through unmodified. Of liquids and the liquefied parts of the food much is here absorbed by the blood-vessels of the stomach; the substances that have not become completely soluble pass by degrees, for further elaboration, through the opposite aperture in the stomach into the next division of the alimentary canal, the duodenum.

Here they are subjected to the influence of two organs, the liver and the pancreas, to be most briefly described for our purpose as appendages of the alimentary canal turned inside out. Let us imagine a hollow fold outwards of the alimentary canal gradually growing into a long and thin canal, with its

very narrow cavity opening into the much wider one of the alimentary canal. This canal, which is called the gall-duct, then parts into two branches, of which the one very soon ends in a bulbous-shaped swelling, the gall-bladder, while the other, like the windpipe, ramifies into a network of fine branches. Into this network another double one forces its way as in the lungs. Not only does the main circulation send arteries out from the aorta, which spread here into a network of capillary vessels, but the venous blood also, returning from the intestines of the abdomen, gathers into a great trunk, the *vena portæ*, and this, again dividing into a network of capillary veins, likewise accompanies with its fine ramification the branchings of the gall-ducts. Thus, in combination with the cellular mass, this threefold twist forms the liver; formed by an enveloping membrane into a compact, bulky organ, and extending from the right side of the abdomen across its line of bisection, it hangs below the diaphragm, fastened in a fold of a closed membranous bag, the peritoneum, whose surface in front extends over the inside of the muscular-wall of the abdomen, and at the back, with several folds inwards into the interior of the bag, receives and holds firm the most important segments of the alimentary canal. The yellow bitter gall is secreted into the minutest branches of the gall-ducts out of the cells of the parenchyme of the liver in which these end. That this fluid exerts an important influence on digestion seems to be proved by the constancy with which in the higher classes of animals the liver is everywhere so constituted that from it and from the gall-bladder, in which is collected the always prepared product, the gall is conveyed to the alimentary canal, through the above-mentioned means of exit, in proportion to the food which enters it from the stomach. But I naturally avoid entering into the more special theories which physiologists have tried to establish in regard to the nature of this effect Enough that exceedingly laborious and meritorious investigations have hitherto done very little to make us thoroughly acquainted with the working into each other of the vegetative operations, and that our views of the chemical processes of

digestion and assimilation are still undergoing perpetual modification. Instead of dwelling on such details, I refer to a conception in which chemical investigators have given expression to their view of the general purport of the reciprocal actions here observed. The animal body, of course, is nourished only by substances brought to it from outside, which on the whole have already the same composition as its own constituents; the complete assimilation of the absorbed material seems, however, only possible through the effect of substances already belonging to the organism and supplied by it as corrective ferments in order to guide the chemical reactions of the absorbed foreign material in a direction favourable for the ends of assimilation. A great number of such substances—pepsine, gall, and the juices of the pancreas and of the many glands of the alimentary canal—are in this way constantly introduced by the organism among the chemical reciprocal actions to which the elements of the nutritive matter would be liable by their own nature. We are ignorant what particular operations are incumbent on these single agents, and even the pathological phænomena due to the disturbance of the one or the other do not enable us inductively to distinguish their several functions; we must thus content ourselves with this general conception, and leave to the future its verification in detail.

§ 6. The function of conveying the prepared chyme to the blood, and from it to the constituents of the body, is divided between two systems of vessels. The blood-vessels that in fine meshes traverse the whole extent of the alimentary canal seem to absorb only the dissolved inorganic constituents, such as the salts, and of the organic compounds those which, after being completely diluted, are not needed in the formation of tissues, but are intended to perform other offices in the body. This absorption is so rapid that fluid poisons, a few minutes after they have been swallowed, make themselves perceptible in the blood and the secretions by their reactions, in the rest of the body by their effects. The reception of the tissue-forming nutritive substances—of albuminous and

along with them of fatty elements — falls to the other system, the lymphatic. The velvety appearance by which from the stomach downwards the inner surface of the mucous membrane is more and more marked, when looked at under the microscope is found to be produced by fine villous formations projecting into the intestinal cavity. In the upper part of the alimentary canal conical elevations with a broad base, they become, in the lower part, tongue-shaped organs, pressed together to the number of 40 to 90 to a square line of the mucous membrane. The light-coloured indefinitely fibrous base of their texture is surrounded on the outside with a covering of cylindrical cells, under which on two sides its blood-vessels mount upwards connected by an intervening network; the middle is occupied by the beginning of a lacteal with a knotty or blunt end. These lacteals, which gradually run together into larger trunks, are afterwards united with the branches of the lymphatic vessels, that absorb from the other parts of the body the superfluous discharged blood-fluid, and the two canal systems which greatly resemble one another in structure and action finally convey their fluid contents through a common outlet into one of the main trunks of the venous system of vessels, the *vena cava*.

Neither in the lacteals nor in the blood-vessels are openings for the passage of the substances to be conducted by them perceptible; in them too, therefore, absorption must take place through the walls, and must be confined to fluids or to solid parts of such minuteness that they can penetrate the invisible intervals which we may suppose occur between even the smallest particles of these walls. Even on this supposition, however, the mechanism of this absorption presents peculiar difficulties, hardly to be removed except by supposing a chemical attraction of the inside of the closed vessels, which determines the entrance of the fluid, and prevents its regress through the coat. On this hypothesis the considerable amount of elasticity possessed by the walls of the vessels would sufficiently explain the onward pressure of the contents by which they are distended, in the free

direction towards the circulating channels of the blood; moreover, the action of this propelling force is aided by a number of valves, which the current opens when running this way, but would shut were it to flow backwards.

Up to the time when they enter the blood, chyle and lymph are subjected in numerous glands, with which their vessels become entwined, to the transforming influence of the blood itself, to whose composition theirs is always more and more approaching. Peculiar granular bodies, of microscopic minuteness, formed from albuminous matter, occur in both. They are apparently the first beginnings of a formation by which blood is distinguished from other juices—*i.e.* the red blood corpuscles. As disc-shaped smooth cells these swim in immense numbers in the blood; they are formed from a viscous clear fluid without any solid nucleus, and enveloped in a very elastic transparent outer membrane, whose constituents are an albuminous body, globuline, and a red pigment containing iron, hematine, likewise albuminous. We are not as yet free from doubts in regard to the mode of their origination, or the way in which they perish as they grow old, or the services rendered by them to life, which we have much reason to look on as highly important. Their function is supposed to consist partly in their being applicable to nutrition and the formation of tissue, partly in their actively promoting the transmutation of substances by absorbing alternately oxygen and carbonic acid, under whose influence they bring about the difference in colour of arterial and venous blood. In disease the fluctuations of their quantity in the blood are found to influence considerably the vividness of the operations of the nerves.

Chyle and lymph are the only sources of fresh supply for the blood; the modes in which it gives out its constituents are far more varied. Probably only a comparatively small part of what is given out is applied to the reparation of the textures worn out with their operations; perhaps one more considerable contributes to the production of a variety of parts such as hair, nails, epidermis, which are perpetually growing, and

detach themselves in solid form from the body by breaking or peeling off; still more considerable apparently is the amount of the secretions from the blood, which, like the numerous juices of the alimentary canal and its associated glandular organs, are again made use of as subsidiary means to the ends of assimilation, before being removed from the body. The bulkiest of all excretions, however, takes place through evaporation from the skin and lungs, and through the secretion of urine. Both processes are designed merely for the removal of masses become unfit for use, though the first perhaps serves to neutralize many disturbances of the bodily mechanism by means of the accessory effects that attend or follow the activity of the excretion. The nitrogenous constituents of urine, sometimes dissolved in a large variable quantity of water, sometimes deposited from it in solid form, make it unquestionable that it is mostly in this way that the residuum of the albuminous substances is got rid of when chemically decomposed. One of them, urea, has been found already formed in the blood, and to it at least the kidneys are related not as a productive organ, but only as a peculiarly fashioned filter, whose texture lets its watery solution pass through into the cavity of the passages of exit, while it forces the other dissolved and still serviceable constituents of the blood to remain behind.

The exhalation of carbonic acid from the lungs is attended by an abundant development of watery vapour, which makes the breath visible at a low temperature, and contains the carbonic acid as it passes into the outer world. Again, from the moist, thick mucous coat, abundantly pierced with vessels, and lying under the epidermis, water is constantly forcing its way to the outside, and escaping in the form of vapour through the horny, thin layer of the epidermis, which everywhere forms the outmost covering of the body. The greater part of the whole perspiration from the skin seems to take place in this way, a smaller part being the product of peculiar, small glandules, that, imbedded in the mucous network of the dermis, send outwards a spirally-winding fine outlet, from

whose aperture the detached fluid evaporates, but does not appear as a liquid, in the form of sweat, except where the production is too abundant, or the external atmosphere does not sufficiently absorb it. Besides the ordinary salts of the blood and very small quantities of organic constituents, sweat contains only water, lactic acid, and ammonia; its composition therefore does not seem to justify the importance ascribed to the activity of the skin, or the many bad effects which result from its suppression. But it is quite possible that its more important function is not the removal of these unimportant substances, but the labour of the removal, or that, in other words, the constant carrying on of this process of evaporation occasions, for the extremities of the nerves lying on the surface of the body, in the skin itself, conditions that are indispensable to the due fulfilment of their functions. While we cannot pursue this branch of the advantage afforded by the secretion from the skin, we may further merely note that it serves as an efficacious means of moderating the heat of the body (apt to be increased by many causes), and in particular of the blood. A large quantity of heat is laid hold of and removed from the body in the abundant evaporation, whether sensible or insensible, constantly going on from its surface, and the same takes place without interruption through the exhalation of the lungs.

Not all the constituents of the body have been mentioned in this sketch of its structure and operations. We have left many of the greatest importance to be dealt with later, as our present purpose is only to illustrate the great extent to which life employs, for the execution of its functions, the same means by which human mechanical skill produces its works.

# CHAPTER VI.

## CONSERVATION OF LIFE.

Physical, Organic, and Psychical Compensation of Disturbances—Examples of the Establishment of Equilibrium — The Sympathetic System — Ceaseless Activity of all that is Organic—General Sketch of Life.

§ 1. IT is on the direct interaction of infinitesimal particles that the preservation of the bodily form and the capacity of vital operations everywhere depend. Of these nothing is disclosed either by the aspect of the living body, or by our internal observation; quietly and unawares to ourselves there go on all the chemical transmutations of substances, all the stages of their formation, the regular addition of some, the gradual removal of others. What forces itself on our observation as evidence of life—the constant alternation of breathing, the unceasing pulsation of the heart, the heat that pervades all parts of the body,—all this is but the manifestation of mediating activities, by means of which the organism seeks each moment to re-establish the conditions necessary for the continuance of the invisible play. But even from this point of view these preliminary operations are of great importance; in fact it is the very peculiarity of life that, by means of the fixed modes of connection in which it combines the elementary substances into mutual relations, it directs and compels their inherent forces to unwonted results. It is therefore well worth the pains, after having described the mutual effect of these activities, further to inquire what are the forces and the laws by which, according to varying requirements, the amount and the vivacity of each individually is at each moment determined, as well as the manner in which it usefully co-operates with all the others. While presenting a wide field still left open for future

investigations, this inquiry concerning the general plan and order of animal economy furnishes for our purpose only the indication of a few points, that we may be able once more to make use of the general view by which we have been hitherto guided, and thus to complete our picture of life.

As it appears from our former observations that the removal of disturbances can be successfully carried out only where these somehow set in motion compensatory activities of the body antagonistic to themselves, so also cravings of all kinds can only be satisfied by the state requiring modification itself exciting the reactions essential to its alteration. This general condition may be fulfilled in various ways. The structure of the single parts itself, when once established, may, as in every case of elasticity, develop an effort to return to its prior condition, and this effort (at least within certain limits) may increase in direct proportion to the amount of deviation from it. Here the disturbance is removed, in the most direct way, by the forces inherent in the particles whose relations it had altered, whether because the remedial reaction steadily grew along with the disturbance, or because the disturbance compels the internal relations of the parts in question to a suddenly exhibited reaction, after it has reached a certain height. Did the body consist of parts of which each had to care merely for its own preservation, we would find this simplest form of neutralization more frequently applied, or rather the parts so constructed that its application would invariably be possible. But it is one of the ends of life to use the needs and disturbances of one part in order to excite the operations of others, and to adjust commotion in one part, not in the shortest way, but in that which admits of necessary and useful incidental effects being gained for the advantage of the whole. We therefore find a second form of adjustment largely applied; the disturbance of one part diffuses its consequences over a considerable section of the organism, and, not content with exciting the resisting forces of the spot directly affected, on the contrary, by its communicated

impetus, rouses remote parts to a more extended and various reaction. Starting from constituents by which this impetus was received in regular mutual combination, and connected by a variety of relations, the reaction may also be far more intense and complex than would have been that of the simple resisting force of the separate parts originally subjected to disturbance; it will not merely remove the single disturbance, but at the same time evolve from it, in different directions, impulses favourable to the further continuance of the vital operations. As the ingenious machine restores to the outer world the simple, almost formless, impetus which it received, transformed into a variety of movements, which are intricately adjusted to one another, so the not less ingeniously adapted connections of living parts intervene between the single disturbance and the whole of the organism, and satisfy special needs with due regard to the wellbeing of the latter. In the nervous system we shall meet with provision for binding the states of locally separated particles into reciprocal action, which their situation and structure would not of themselves allow, and by which at the same time the disconnected and fragmentary satisfaction of particular necessities is converted into the harmonious carrying on of a general economy. If we call this new kind of adjustment organic, in contrast to the simpler physical one, we do not mean thereby to imply any difference in the efficient forces, except that difference in their application by which our conception everywhere distinguishes systematically ordered life from the substances of the inorganic world which are isolated or accidentally thrown together. Even this kind of adjustment and preservation is not the last and highest; beyond the limits of our present inquiry, but yet requiring mention here, lies the co-operation of the soul. The disturbed part cannot always find the means of remedy in itself; often it does not find them even in the resources of the nervous system, to which it turns for aid; but its disturbance becomes converted into feeling and sensation of the soul, and, quitting the too confined physical region, the excitement is

carried on in that of the mind, in order to summon all the resources of insight, to finally react on the bodily organs, with the acquired help of a resolution, and to thus open up to them ways of satisfaction which they would not have discovered for themselves.

We reserve for future occasions the consideration of this supplementing of the bodily by the mental life; meanwhile let us try to present by a few examples a sufficient sketch of the simple physical, and of the organically prepared adjustment.

§ 2. In so far as it is possible, Nature has preferred the direct settlement of disturbances and the satisfaction of needs by forces proper to the parts, to the employment of peculiar organic means; she frequently turns to account in this way properties belonging to the tissues either permanently or, at least, without interruption for a long time, and keeps in reserve those other energies which it does not seem possible to exert, without using up the matter in which they inhere. Even muscular movement we see in many cases replaced by the physical elasticity of the tissues. The contraction of the heart is indeed carried out by means of the vital drawing up of its muscular fibres, but its expansion is effected by means not of an opposite vital energy, but partly of the slight elasticity of its texture, partly of its retreat before the advancing current of venous blood. Each muscle of itself regains its former length after the moment of contraction, without requiring a special expansive force. The distension of the lungs is effected by means of the vital energy of the muscles of respiration, expiration by the voluntary elastic drawing in of the stretched tissue. Much work is saved in the most ordinary operations of the limbs by favourable relations in their structure. An oscillatory movement, initiated, without the exertion of vital force, by mere gravity, carries the leg that is behind in walking, past the one in front to the point whence the new step forward can be taken; the body itself acquires in walking a tendency forward that leaves nothing to be done by the vital exertion of the muscles but to support it and to stretch out firmly

the advancing leg. At the same time the top of the thigh is kept firm yet moveable in its deep socket, not by special activities only, but also by the pressure of the atmosphere, and similar examples of the economizing of vital energy would be furnished in abundance by a more detailed consideration of bodily movements. Even the regularity of the circulation of the blood is, within wide limits, self-maintained, the amount of possible divergence from it being at the same time fixed. Should the arterial system be for the moment overfilled with blood, the tension of its walls thereby increased would tend with the greater force and rapidity to remove the excess, and the diminished current conveyed to the heart by the proportionally less filled venous tract would of itself prevent that organ from keeping the arteries in their flooded state.

The comparative constancy with which, under the most various influences of food and mode of life, the blood maintains or restores its normal composition, gives probability to the conjecture that its separate constituents, like the elements of a stable chemical combination, cleave to one another more firmly in the proportions forming its normal composition than in other reciprocal proportions, temporarily determined by chance. This, however, would not prevent the blood from continually absorbing new ingredients through attraction from the tissues, from dissolving them, and causing them to take part in its circulation; only these superfluous additions would remain outside of its regular combination, and very soon fall a prey to the forces determining the separation and conversion of substances, while, after their special office had been performed, the blood would once more return to its normal constitution. This would be a process the same as that which takes place when an aqueous crystal is separated from a watery solution; the water belonging to its chemical composition resists the evaporation by which the rest is detached; nevertheless the crystal remains soluble in water; thus, although its chemical formula contains only a fixed quantity of it, this does not prevent it

from further being able to attract greater quantities, only that it cannot retain the latter so firmly as the former in face of unfavourable circumstances. On such a hypothesis it would be intelligible how the blood can itself, by its actual condition, direct the amount of absorption and removal If it comes into contact with the thinly fluid gastric juice or the plastic lymph everywhere diffused, in a degree of concentration at which it contains only the necessary constituents of its normal constitution, it will be able to absorb large quantities of both; but this absorption will diminish, the more material the blood has taken in beyond its necessary supply. It is thus prevented from becoming overloaded by reaching a condition of satiety such as exhausts the powers of absorption or attraction, and of itself determines a certain proportion between the fresh supply and the demand which it meets.

Now the blood is being perpetually conveyed to the secretory organs, under a certain pressure of its walls, after the modifications which it may have undergone in its course. This pressure will hardly alone suffice for the production of any, certainly not of every, secretion; the organs to which this operation is assigned cannot be regarded as mere filters, through whose pores fluids are forced by the pressure of the blood; their office is often, as we have already seen, more varied and complicated. Nevertheless, at least the water and the salts which it holds in solution, will undergo no further elaboration in secretion; we may apply our general considerations to their removal. If the blood becomes so diluted that its aqueous content exceeds that of its normal formula, the secretory forces of the organ—whatever these may be—will, under the pressure of the blood, be more favourable to the passage of the surplus than to the further separation of any of that amount of water required by the composition of blood. For that is subjected to the action of the secretory forces not uncombined, but in association alike with the albumen which it holds in solution and with the other ingredients of the blood, and, in virtue of these detain-

ing conditions, can resist those forces,—as can likewise the salts which enter in fixed quantities into the composition of the blood.

Again, we can further apply the same reasoning to the organic ingredients that are discharged from the blood alike in nutritive and excretory secretion, sometimes not without having undergone some chemically transforming influence of the secretory organs. A part of the tissue whose formation is absolutely normal, and which therefore has no need of repair, will have no particular attraction for the nutritive material circulating around it; one whose constitution has been altered, and which on this very account has become more dissimilar to that material, will attract it more powerfully, and thus bring to bear a new condition favourable to its exit from the vessels. Here too, then, the demand would directly determine the adequate amount of the supply. If blood richer in substances offers to the secretory organs larger quantities of that which they are always working up by their energy, the mere presence of the more abundant material may suffice to cause an increase of this energy, at least where the latter does not depend on internal changes in the organ, that have themselves a fixed maximum of intensity and velocity. It is more evident that the secretory activity will invariably meet with a growing resistance when its material is conveyed to it only in such quantity as pertains to the stable constitution of the blood and is kept back by the latter. If, further, any obstacle checks the secretory activity of one organ, the molecules obstructed here will seek egress wherever else it is under these altered circumstances possible or easiest for them. The suppression of skin-evaporation throws the body of water that should escape from the surface back into the interior, and, as no organ is impervious to it, we find the inactivity of the skin followed by augmented watery secretions from all the separatory surfaces, first and chiefly from that one which, in the sum of the given circumstances, offers least resistance to the exit. It is equally well known that excessive skin evaporation reduces

the quantity of the other secretions and increases their concentration,—a result to be explained, apart from any particular expenditure of compensatory activity, by the absence of proper solvents. Many means of egress are not, however, open to all excretions; the suppression of a given secretion may either wholly prevent the formation of the substance to be removed,—this having perhaps been possible only through the peculiar energy of the organ now in repose,—or, where the substance is already as such present in the blood, its exit may be prevented in the form which it has there, and in which it could have found a free passage only through the now blocked-up organ. In this case substitutory processes will develop themselves; either the material from which the substance to be removed was to be formed, or that already formed, will have to undergo still further transformations and divisions, and finally to assume forms in which its removal is possible through the other still open organs. As the substances in process of being re-formed undergo in the blood an ever continued reaction with oxygen, such as seems favourable to their reduction to a simpler and looser combination, it is conceivable that this change also, in the direction of secretory energy, is self-determined, without the interference of a special regulating force. Nevertheless the evil consequences for the health of the whole which result from the stoppage of important secretions, show us that this substitution of one activity for another involves difficulties, and is hardly calculated to serve as a means of adjusting disturbances to any large extent.

§ 3. Our purpose has only been to make clear, from the examples cited, the possibility of a purely physical compensation of disturbances, but we cannot be by any means certain that in them a beginning of organic compensation is not involved by the application of a system of organs or energies expressly designed for this end. So much in the deeper connection of vital phænomena is still obscure, that an operation often seems to us simpler than it is in reality, and that we can often explain what we know of it with

few means of explanation, whereas from the greater expedients actually used by Nature we must conclude there are difficulties unknown to us lying in the way. I have above stated the general grounds which include the inadequacy of merely physical compensations. They would all finally aim at the re-establishment of the former equilibrium; but Nature does not always care about that equilibrium; she even sometimes would have it altered for the sake of the ends of development. With this purpose she must bring into mutual vital action even such parts as could not directly transfer their states to one another.

The nervous system is designed for the performance of this task. We have already mentioned the motor nerve-fibres that, proceeding from the brain and the spine, convey to the muscles of the body the impulses to motion there arising from the mental life, and occasion in them contractions sometimes momentary, sometimes continuous. In like manner the sensory fibres, which in outward appearance are identical with the others, and differ only in the results of their operation, connect all the sensitive points of the body from which they run with the central organs to which all impressions must be transmitted, in order that they may exist for consciousness. On these two kinds of fibres and on the masses of the brain and spinal marrow, in which they end or from which they start, depend all the services that have to be rendered by the corporeal life to the ends of the mental. A more precise description of them may be deferred to a future opportunity. Besides these organs, which we comprehend under the name of the cerebro-spinal system, there is the other system of the sympathetic nerves, which, from the many glomerate or twisted protuberances (the ganglia) into which its far finer fibres are knotted, has received the name of the ganglionic system: to it is for the most part committed the maintenance of the internal order of the bodily operations.

The less any part of the body is designed for voluntary movement, the less its capacity to convey to consciousness impressions of its states and the more energetic its

change of substance or plastic activity—the more frequently do we find in the nerve-bundles which it contains the delicate fibres of the sympathetic along with the thicker ones of the cerebro-spinal system. Observation and experiment unite in confirming the conclusion to be drawn from this circumstance in itself, that this second nervous system has to minister to the sum of the vegetative operations, the chemical transformation of substances, their sustenance and reproduction, the construction of particles, finally, the purposive harmony between the amounts and kinds of the separate actions. This mutual adaptation of the operations of various parts presupposes that the impressions received by the single fibres of the states of the place to which they run, are brought into reciprocal relation and accord, and that there are centres in which their various excitations come into contact, and thus, by their effect on one another, yield the impetus to a definite reaction, adapted to the actual situation There can be no doubt that the ganglia found in great numbers in the different vegetative organs, are the instrumental points of this mutual influence; but we are not yet sufficiently acquainted with the conditions under which a transference of the states of one fibre to another takes place, which is not met with elsewhere. For not even here can we observe a direct confluence of several fibres to form a common trunk; but scattered between the fibres there are peculiar elements, roundish vesicles containing a nucleus, the so-called ganglionic cells, from which not only do single fibres proceed, but of which several are sometimes uninterruptedly connected with each other by fibrous prolongations which they send out in different directions. It is reserved for the future to decide finally as to the functions of these parts, many like to which occur also in the brain and spine, and to determine their utility for the mutual action of the individual fibres. Supposing such reciprocal action somehow originated, each ganglion will, in the first place, be an intermediate link through which the impression travelling from any part of the body is enabled to exert an influence on states of

another part with which the former is not in direct connection; and at the same time it will also act as a central organ, inasmuch as it will not henceforth allow to this impression the amount and kind of further work that correspond to its nature and strength by themselves, but will fix its effect in accordance with the simultaneous demands of the other parts with which it is also connected. There is no difficulty in supposing that the small ganglia (directly controlling the internal relations of a limited symmetrical region of parts again united to each other by commissures or connected with larger ganglia as central organs of a higher order) bring the operations of more extensive organs and systems of organs into mutual harmony, till finally, by their close interlacement, all the vegetative processes of the body are brought into the unity of regular progress, encircling support, and adjusting reciprocal action. These connections of the central organs do in fact exist, and from the neck through the cavities of the chest and abdomen there runs down on both sides of the spine the chain of the chief ganglia, which, united by nerve-fibres, send out other fibres to join the numerous tissues that are associated with the separate divisions of the intestines.

In former times, the sympathy by which the disturbances of one organ so frequently affect others, even those locally at a distance, was supposed to be dependent on the efficiency of this system, and not inaptly it has received from these sympathies its name of the sympathetic system, though, according to the results of recent investigations, many of them spring, without its participation, from the reciprocal action of the cerebro-spinal nerves. Observation and experiment have in part informed us in what form of energy it carries out its functions, while, however, we are unable exhaustively to determine the extent of its effects. What has been certainly established is in the first place its influence on the movements of the intestines, whose muscular coatings contract after the irritation of the ganglia that control them. Not at once, like the muscles of voluntary motion, but some time after the application of the stimulus, the intestinal canal

contracts by the drawing up of the thin muscular sheath by which it is circularly surrounded, and this shrinking, lasting longer than the applied stimulus, gradually advances in undulations, after the re-expansion of one part the contiguous portion contracting without any fresh external impulsion. Similar signs of a slow contraction are observed in the larger vascular trunks, into whose coatings, consisting not merely of elastic but also of vitally contractile muscular fibres, sympathetic filaments run. The periodical pulsations of the heart depend on a system of microscopically small ganglia, imbedded in its peculiar muscular substance. In cold-blooded animals the pulsations of the heart go on regularly for a good while, even after its removal from the body; even the single parts of the mutilated organ still contract, only those, however, which contain the ganglia. These facts prove that both excitation to movement in general, and the ground of the rhythmical alternation of tension and relaxation, lie in these nervous central organs; but we know neither whence they themselves draw their excitative force, nor in what precise manner the periodicity of their activity is brought about.

The sympathetic nerves do not seem to be capable of giving rise to sensations. In the ordinary course of things we have no impression of the states of the parts that they mainly control, of the condition of digestion, assimilation, and secretion, of the distension of the vessels; we come to know them only when their influence is more widely extended to other parts, whose sensitive nerves convey to us these indirect stimulations, or when very important changes and anomalous states occur in them. It is uncertain whether in the latter case the sympathetic fibre takes on itself the conducting of impressions to consciousness, of which it is usually incapable, or whether the cerebro-spinal filaments, which, though few in number, are never wholly absent in its train, here as elsewhere perform this office. Perhaps also the sympathetic fibre is not generally quite destitute of the capacity for producing sensations, only those produced are lacking in the delicacy and sharpness necessary to their being distinctly separated

from the general sense (or organic feelings, *Gemeingefuhl*). Without doubt, on the other hand, these fibres fulfil for the ganglia partly the same office which the sensory fibres of the cerebro-spinal system fulfil for the brain; they serve as carriers and messengers, to make known to the ganglion the states of the parts from which they come, that as the central organ it may resolve on the necessary reaction.

The important influence unquestionably exerted by the sympathetic system on the changes of composition of the corporeal juices, is very little known as regards the manner in which these are brought about, yet various possibilities may easily be conceived, among which the future perhaps will decide. The contractions caused by the energy of the sympathetic fibres in the muscles make it probable that also other tissues may under the same influence undergo alterations in the situation of their infinitesimal particles. As the chemical composition of the juices unquestionably depends to a great degree on the nature of the coatings through which they react, exude, or are absorbed, a change in the physical condition of the membranes would easily explain the manifold deviations of the secretions, which are found to occur under the influence of violent nervous irritation, and which certainly go on all through life, though less obtrusively and with less abrupt alternations. A membrane through which two fluids strive to act upon one another will, with different degrees of tension and a different collocation of its infinitesimal particles, not always bring together in the same manner the substances seeking to act; it will be able sometimes to prevent the passage of the one, and to facilitate that of the other. In thus hindering the occurrence of a single customary chemical process, it can easily impart new and widely diverse forms to the total result of its activity. But the other possibility also remains open, that the nerve-fibre, at the moment of its activity, directly causes a chemical reciprocal action, inasmuch as (like the electric current, that causes the already present but still delaying constituents of a future combination to realize it at once, or as swiftly dissolves

other combinations) it introduces into the play of the substances a condition, which gives new directions to the chemical affinity between them. We have least evidence of any direct *formative* action of the nerves, and we may suppose that their function is fulfilled in the establishment of the chemical nature of the substances, and that these then under the direction of their own forces and of the united impression of the already organized environment, assume the forms adapted to them.

By means of contraction of the vessels the nervous force would increase the pressure of the blood on its walls, and thereby alter the conditions of all the activities of absorption and secretion. By means of the shrinking of particular parts of the tissues it would determine in a peculiar manner the afflux and reflux of the blood for these parts, and be able to bring together accumulations of efficient matters flowing past with less velocity where they were rendered necessary by more vigorous growth and more rapid change. By acceleration of the muscular movements, which, on the whole, introduce and carry out the locomotion of the matters, it would guide and complete the draining away of the excreted, the reception of the newly-acquired material Finally, through altered tension of the membranes, it would be able to determine the amount of the change of substances in the whole, and the fluctuations of its activity in particular parts. And the nervous system would be determined to all these manifestations of its energy, partly by means of the impression of the disturbances to be neutralized, while at the same time the normal processes in the body would be continually conveying to it stimulations, which, accumulating at particular moments, exert a suitable effect when they have reached a definite strength. Thus would occur at one place varying fluctuations, at another regularly and rhythmically recurring periods of activity and rest. It is needless further to describe these events, whose forms of manifestation are known to all, while their definite conditions are grasped by none; let us rather supplement this mention of them by the remark that,

though displaying this abundance of operations, the system of the sympathetic nerves does not nevertheless depend in total isolation on its own resources, but that it is connected by numerous filaments with the cerebro-spinal system. These were long regarded as the real roots of the ganglionic nerves, which were held to be not an independent system, but the dependent extension and intertwining of many cerebral and spinal nerves Now many grounds have at present given preponderance to the idea of an independent ganglionic nervous system, yet its numerous connections with brain and spine cannot have exclusively the object of guiding in these organs also the reparation which, worn out by their operations, they may need; on the contrary, they seem just as much at least to admit of these foci of proper animal life having a certain influence on the course of the forming and preserving processes. The plant alone preserves its life—as long as it does preserve it—exclusively through the harmonious action of its material constituents. The animal organism, though infinitely more complex in its arrangement, yet forms within itself no independent cycle of operations. Anywhere and in any form, however subordinate, we may see elements of mental life intervening between the operations of the corporeal organs, and filling gaps left between the single links of the chain of vital processes. The plant, immersed in its elements of life, air and water, finds itself by no effort of its own in perpetual action and reaction with the supplies which it needs; the animal has to seek its food, and cannot perform this part of its vital round without having recourse to various means of mental activity. If we rooted out all those instincts by which the animal seeks for its states of sensation remedies, with all of which the course of Nature does not of itself supply it, its organism would be capable of nothing more than restricted and quickly terminated self-preservation; and far from being the spontaneously-acting machine, which an inaccurate analysis of facts has so often taken it to be, it is but one half of a whole, unable to live without the other, the outer world and the soul.

§ 4. How entirely in fact has the course of our inquiry overturned the prejudices suggested to us by the immediate sight of life, the dreams of unity, independence, and constancy in the living form! We can as yet hardly say what are even the local boundaries that divide the organism from its environment. When does the air in our lungs begin to belong to us, and when does it cease to be a constituent of the body? Has it become ours when it is absorbed by the blood, and was it not ours when it was still in the cells of the lungs? Is the chyle a part of our body after it has made its way into the chyle-vessels, or are not it and the blood but a piece of the outer world drawn into the circuit of the body, superficially altered by the vital forces, but still with only an approach to participation in life? And do not many substances, such as the soluble salts of the terrestrial crust, circulate through our body, through blood and organs, and yet always remain foreign ingredients? At no one moment does the body contain only what properly belongs to its constitution; we always find in it substances that are about to become, others that have ceased to be, its own; materials for the future and ruins of the past are associated in it with the living stem of the present and with fragments accidentally detached from the outer world.

Just as little in the course of its development in time as in space is the body rounded off into strict unity. Since its supplies, its growth, and its evolution are not effected from its own resources, it must, on the contrary, everywhere have recourse to the favourable assistance of the outer world. Its life is like an eddy produced in the bed of a stream by a peculiarly shaped obstacle. The general course of Nature is the stream, the organized body the obstacle against which this breaks, and its peculiar shape converts the uniform and straight current of the water into the strange windings and crossings of the whirlpool. So long as the form of the river-bed remains the same, and as the waves flow on, this play of movement will be continually repeated, with always the same apparently unchanged figure, though from moment

to moment the stream is different that produces it coming, and going leaves it. But the form of the river-bed will not remain the same; the force of the torrent will be always changing it, and what that cannot do will be accomplished by the native force of the eddy itself, still more destructive. As a sea current by the dash of its waves, which is caused by the special form of the shore, levels the shore, and thus itself removes the cause of its peculiar movement, so also do the exerted energies of life, all the manifestations and operations of its organization, turn back with slow but sure force to disturb the foundation on which they rest. The eddy of to-day is not that of yesterday; the continual reconstitution is bringing back always similar, never identical, states.

We shall not leave this comparison without borrowing from it a final comprehensive view of vital processes. According to a widespread delusion, the highest and noblest phænomena of Nature as well as of the mental world are distinguished by unconstrainedness in the strict sense, and have secured to them, by the immovable stability of their nucleus, immunity against all assaults of the external world, and steadiness of development by the simplicity of their internal structure. But, in truth, the higher forms of being have more conditions than the lower, and the strength of their existence consists only in the ingenious calculation with which they meet the increased variety of their wants. Living bodies are not animated by a simple moulding impulse, independent and powerful from its intensity; their constituents do not combine with extraordinary unconquerable forces to a more solid unity, as might be possible for the unorganized; depending on a constant flux of their mass, they are, as compared with these, frail and perishable structures. Yet the advancing current of countless physical events is broken by the favourable conditions under which the parts of these, united together, meet the course of Nature, and assumes the shape of a stable figure, that draws into itself the substances of the outer world, holds them fast for a time, and then restores them to the more chaotic vortex of inorganic Nature. This manifold play of

events is not attached to a rigid substratum, but, like the many-coloured radiance of the rainbow, moves and flutters above a ceaselessly changing scene below. Nay, so little do we find in organic bodies any inherent self-sufficient vital force, that we can, on the contrary, regard them only as the places in space where the matter, the forces, and the motions of the general course of Nature meet each other in relations so favourable that variable masses can be solidified into a form that is nevertheless ere long to perish, and their reciprocal actions go through a course of flourishing and decaying development. However much we may be tempted to admire, as stable units and as self-contained wholes, the form of the plant with its tranquil growth, and the figure of the animal with its power of locomotion—finally, however urgently we may be impelled by ethical motives to look on ourselves in the same way in contrast to the rest of the universe, within which is contained the material that we can mould by our actions: nevertheless science, seeking the physical basis of our existence, cannot view the rest of Nature as a foreign, formless chaos extending around the individual living being, and waiting to receive connection, form, and development from its vital energy. The focus of a lens condenses the heating force of light or renders the graceful outline of a figure by no merit of its own, but derives from the convergence of the rays the privilege of being the scene of these remarkable phænomena: almost as little by its own exertions does the living body collect the substances and motions of the environment to compose the detached figure of its own form. It is indeed partly the refractive power of the lens that collects the rays, but even this element of efficacy it owes to a transmission in which the forces of the outer world actively co-operate. Thus it is what it is by virtue of the circumstances from which it sprang; selected for harmonious evolution, if they concur favourably in its production, condemned to a sickly and wretched existence if discordant conditions cross each other in its beginning. The ceaseless universal motion of Nature is the all-embracing tide, in whose most agitated part—not

indeed like steady islands, but only like whirling eddies—living beings emerge and disappear, as the masses in their onward course experience momentarily a common impetus into a new path, a concentration into a definite shape, before being ere long again cast headlong and in fragments into the formless, universal tide, by the same forces that brought them to this point of intersection.

# BOOK II.

## THE SOUL.

# CHAPTER I.

## THE EXISTENCE OF THE SOUL.

Reasons for believing that there are Souls—Freedom of the Will—Incomparability of Physical and Psychical Processes, and Necessity of two diverse Grounds of Explanation—Hypothesis of their Union in the same Being—The Unity of Consciousness—What it is not, and what it really is—Impossibility of explaining it as a Combination of a Plurality of Effects—Relating Knowledge contrasted with the Composition of Physical Results—Supersensuous Nature of the Soul.

§ 1. NOW in this perpetual flux of elements, attracted to and repelled from one another, what is our own place? To whom belongs our manifold inner life, with its play of knowledge, its pain and pleasure, its ever-varying energy of volition? May all this be after all but a subtle form of illusion, but a reflection of the inner movements of the eddy, like the play of colour that flickers in the light spray above the heavier surging of the waters? Or is there within all this externality a genuine stable point, to which all corporeal growth is but a home and an environment, and all the unrest of the change pervading the visible form but a varying incentive to the many-sided development of the unity of its own life?

In opposition to what experience sets before our eyes, the natural reflection of the human race has always decided in favour of this belief. We have no opportunity of observing mental life except in constant connection with the bodily form and its development; we see the two unfold together, and as the bodily frame falls to pieces, the fulness and energy of the mind that animated it also disappear wholly from our ken, leaving no trace behind. Experience endeavours, with what would seem to be the most distinct intimations, to persuade us that all internal activity springs from the com-

bination of materials, and vanishes with their separation, and yet the living intelligence of all nations has in the name *Soul* expressed the conviction that not merely a difference of outward appearance distinguishes internal phænomena from corporeal life, but that an element of peculiar nature, differently constituted from the materials of the frame, lies at the base of the world of sensations, of emotions, of volitions, and by its own unity binds them into the whole of a rounded-off development. So universal a prejudice never can arise without strong grounds contained in the nature of the thing, and yet we must preliminarily regard it as but a prejudice, the examination and proof or disproof of which is reserved for an express inquiry. For, as surely as the universal instinct of human intelligence does not proceed to such conceptions without the deeper justification of irresistible cravings, so little can we take for granted that it is invariably fortunate in its results, and that it is not seeking satisfaction in a wrong path, the illusoriness of which must in the end be detected by the practised eye of science. And, in fact, when we come to test the reasons tacitly underlying the opinion of the multitude when it seeks to withdraw mental life from the domain of Nature, we shall find that its opinion does not rest on all with the same amount of justification, and that in but a small circle of phænomena are contained the determining grounds for explaining internal events by peculiarity of nature.

§ 2. By three characteristics above all does psychic life seem to be differentiated most unquestionably from the whole course of Nature. On none of these is more stress laid in the ordinary view than on the most equivocal of all—namely, the *Freedom of internal Self-determination*, of which we think we have in ourselves direct and indubitable experience, in contrast to the unbroken chain of necessity with which the states of unorganized matter are evolved out of one another. All that distinguishes our spiritual existence, all the dignity with which we think it necessary to surround it, all the worth of our personality and of our actions, seems to us to depend on

this setting our being free from the constraint of the mechanical succession of whose dominion we are aware, not only over what is lifeless, but also over the development of our bodily life. And yet a little reflection is sufficient to show that neither does that freedom form an observable fact of our inner life, nor is our own opinion of the value to be attached to it always the same. It is true that self-observation very frequently indicates no determining motives on which our resolutions and other internal motions may be recognised as depending; but then our attention is reflected back on ourselves in so unconnected and fragmentary a fashion, that to its imperfect survey an act may readily appear *free self-determination*, for which it would perhaps find constraining grounds, did it go back a step further in the analysis of our internal states. It is true that impressions made on us call forth reactions corresponding to them neither in amount nor in kind, and that at various moments the most various manifestations answer to the same impulse experienced from without. But yet, with all this incalculableness of conduct, we have but repeated in our intellectual life the universal phænomenon of excitability, which, common alike to bodily and to inanimate existence, is no release from the thraldom of activity according to law, but is, on the contrary, the true idea of that activity itself. For nowhere does even an active cause transfer the effect complete to the element which it affects, so as to receive back the mere echo of its own action; everywhere the impression made moves to utterance the peculiar nature of that on which it was made, and the form of the event to come is determined equally by this and by the peculiar energies which its presence awakens in that which is affected by it. Sometimes we are acquainted with the internal structure of the objects on which the stimulation falls, and able to trace its path and the chain of the reactions that it calls forth as it advances. But oftener the internal relations of what is stimulated are obscure to us, and only the first external shock and the final form of the last reaction fall under our observation; the multitude of intermediate links

that necessarily connect the end with the beginning lie unknown between. Thus in numerous gradations the series of phænomena presents to us *here* events the sum of whose conditions falls within our range of vision, and which therefore stand before us as fully determined consequents of their antecedents; *there*, results whose form, having been most essentially modified by the hidden nature of complex intermediate links, no longer stands in any conceivable relation to the simple stimulus that originally caused it. In such cases we are always inclined to think that the chain of necessary connection has been broken; this we found to be the case in the explanation of corporeal life; the same thing meets us again here, where the far greater complexity of coefficient and yet for the most part hidden conditions makes the reaction still more unlike the excitation, and persuades us the more strongly of the freedom of uncaused self-determination. Now, if we become convinced of the erroneous nature of the reasoning that denies the thoroughgoing determinedness of mental life, because it cannot invariably be proved, we may perhaps try to retain freedom as a necessary consequence of ethical truths or an imperative condition of the fulfilment of moral obligations. In fact, we would allow to such a proof, were it unquestionable, fully as much value as a basis for our opinions, as we attach to an observed fact. But, as we have already mentioned, the universal judgment is not agreed as to this; we often doubt whether at all, or in what definite form, this unconditioned freedom is helpful or needful to the satisfaction of moral cravings; it has not appeared to all indispensable, and the attempt to make it more definite leads to questions the answer to which, whatever it may be, is at any rate far from having the clearness necessary to a thought fitted to form the basis of an important view. Finally, we must add, this opinion can speak and means to speak not of a freedom of the inner life generally, but of a *Freedom of Will* in particular; in the train of our ideas, our feelings, and our desires the traces of a universal regularity of laws are so distinct and

obtrusive that no philosophy has ever ventured to withdraw these phænomena from the domain of mechanical necessity. Further investigation would perhaps remove these scruples, and show us how little ground we have to dread this combination of freedom and mechanism in the nature of the soul; but certainly at the beginning of the inquiry the evident prevalence of universal law in the greater part of our inner life can only be adverse to belief in the freedom in a smaller part, which we cannot observe.

But just as little, on the other hand, does experience convince us of its non-existence, and those who, with confident urgency, call our attention to the unbroken connection between mental phænomena and corporeal changes, arbitrarily and erroneously interpret a familiar fact, when they think to find in it a proof that everything in mind is explicable from properties of the matter with which it is united It is indeed matter of universal and incessant experience that the changes of our mental states are dependent on external impressions and the reciprocal action between them and the material constituents of our bodies. Our sensations vary as our sense-organs are variously affected, different feelings and volitions arise when external influences or the transformations of vital energies perpetually going on within have altered our bodily conditions; to the fullest extent do we find the vividness and activity of our train of thought connected with fluctuations in our corporeal states, by which they are sometimes favoured, sometimes lessened and hindered. And after careful inquiry we shall have to confess that in even the highest phænomena of mental life, as they have been produced by the historical sequence of human development, there are still traces of the influence exerted on mental progress by frames of body not the same in all ages. But after all, these facts prove only that the changes of physical elements represent a set of conditions on which the existence and character of our internal states necessarily depend; they do not prove that such changes are the single and sufficient cause from which, in virtue of its own energy and without the co-operation of a quite different

principle, the manifold variety of psychic life is exclusively evolved.

A second glance at the nature of this connection will suffice to show the chasm between this apparently sufficient reason and its alleged consequent. All that happens to the material constituents of external Nature or to those of our own body, whether singly or in combination, the sum-total of all determinations of extension, composition, density, and motion,—all this it is wholly impossible to compare with the peculiar character of the mental states, with the sensations, the feelings, the volitions, which as a matter of fact we find succeeding to them, and erroneously believe to arise from them. No comparative analysis would discover in the chemical composition of a nerve, in the tension, the collocation, and the mobility of its infinitesimal parts, the reason why a wave of sound, reaching and affecting it, should produce in it more than an alteration of physical states. However far we pursue the course of the sense-excitation through the nerve, in however many ways we suppose its form changed, and converted into ever finer and more delicate movements, we can never prove that it is in the nature of any movement so produced to cease as movement of its own accord, and to reappear as a bright colour, as a tone, as a sweet taste. The chasm is never bridged over between the last state of the material elements within our reach and the first rise of the sensation, and scarce any one will cherish the vain hope that at a higher stage of development science will find a mysterious bridge in a case where it is the impossibility of any sure crossing-over that forces itself on us with the most evident distinctness. On the recognition of this absolute *incomparability* with one another of physical events and conscious states, has always rested the conviction of the necessity of finding a special ground of explanation for psychic life.

It is doubtless the interest of science to group a multitude of different phænomena under a single principle, but yet the greater and more essential interest of all knowledge is no other than to trace back that which happens to the

conditions on which it is really dependent, and the craving for unity must give way to the recognition of a plurality of different sources where the facts of experience do not entitle us to derive different things from one and the same origin. No general scruple must therefore hinder us from accepting for the two great distinct groups of physical and of psychical phænomena grounds of explanation equally distinct and independent; moreover, the search for unity would involve merely the demand that in the whole of the cosmos those elements should finally be combined which to our immediate observation appear separated; we might require that the different branches should spring from one root, but not that the branches themselves should coalesce or the one sprout from the other instead of independently beside it from the root. Let us therefore leave this question for subsequent consideration, and at present content ourselves with the right of insisting on requiring *distinct grounds of explanation* for phænomena that cannot be compared.

This right we claim not otherwise than as it has always been conceded for the phænomena of the domain of Nature itself. Wherever we see an element produce results such as neither its ordinary nature nor the motion in which it is for the moment engaged enables us to understand, we seek the complementary ground of this effect in the different constitution of a second element, which, acted on by that movement, evolves from itself the part or the form of the result which we would in vain try to derive from the former. It is not the spark of fire that imparts explosive energy to the gunpowder, for when it falls on other objects it produces no similar effect; neither in its temperature, nor in its kind of motion, nor in any other of its properties, could we find that which enabled it to evolve this destroying force from itself alone; this it finds in the powder on which it falls, or more correctly it does not even here find it all ready, but it finds several substances in a combination that under the influence of the heightened temperature which it brings, must suddenly and with violence expand into the form of a gas. The cause

of the form of the effect produced thus lies solely in the mixture of the powder, the glowing heat of the spark adds the final necessary completing condition. We are enabled to draw the same conclusions by the difference of category of material states and their mental results. However indissolubly the latter are associated with the former as their conditions, they must yet have the ground of their form in another principle, and anything that we can conceive as an energy or efficacy of matter, instead of producing mental life from itself, only occasions its manifestation by stimulating to expression a differently constituted element.

§ 3. But we must still more narrowly define the inference which we venture to draw from these considerations. We were entitled to seek different grounds of explanation for the two diverse groups of phænomena, but we are not on that account yet entitled to distribute these grounds to different kinds of beings. If we cannot account for the appearance of a mental state by those properties in virtue of which we call matter matter, what hinders us from supposing that besides those properties there is a store of inner life which usually escapes our attention, and finds no other opportunity of manifestation than in what we call mental life? Why, in opposition to matter as an ever dead substance, should all mental activity be condensed into the special nature of a soul, destitute on its side of the properties by means of which the physical elements make themselves of account in Nature? Might not the visible substance have directly a double life, appearing outwardly as matter, and as such manifesting no property other than those mechanical ones with which we are familiar, di—internally on the other hand moved mentally, aware of the changes in its states, and accompanying with efforts the activity, whose general subjection to law it is certainly not in its power arbitrarily to alter?

Only by degrees, in the course of these inquiries, shall we be able to return a full answer to these questions; at present it must be sufficient to point out how little at this their initial stage an affirmative reply to them would alter the

position of matters For still this feeling and willing substance would remain a double being, however intimately it combined in the unity of its nature the properties of materiality and those of mental life, they would nevertheless always remain incompatible, and we would never be able to infer from an alteration of its material states, as a consequent necessity, that on its mental side it must undergo a corresponding alteration. It would go through two courses of development, from neither of which can there be conceived a transition to the other; as externally adjusted, the stages of the one course would indeed as a matter of fact correspond to those of the other, but here too the material change would draw after it a mental one only because it found on the other side of this twofold being the mental nature that it could stir to action. Here it is that we find at once the justification and the source of the barrenness of this view. Its justification:—for the evil materialism that is the real destroyer of all cosmic conceptions consists exclusively in the wealth of mind being held to spring spontaneously as a mere addition from the reciprocal action of material substances as substances, from impact and pressure, from tension and expansion, from composition and decomposition, in its being supposed as self-evident that the endless variety of the inner life arises from the mutual crossing of physical processes, as that the resultant of two equal forces tending in opposite directions is rest, or of two that are different, motion in a third and intermediate direction. This it is that must ever be repugnant to serious reflection,—the inaccuracy of thought that takes the forms of mechanical procedure, which have everywhere the function of acting merely as means of communication between the inner natures of individual beings, for the original stock whence, as an incidental and subsidiary result, is evolved all the energy and activity of these minds themselves.

This error is of course avoided in that form of conception which ascribes to matter a secret, mental life; for according to it, the mental element springs not from

its physical properties, but from that which makes matter really better than it seems. But we find here no advantage to be turned to account for the benefit of the first form of our views. If the properties of materiality and mentality are actually united in the same substance, yet so that the one cannot be derived from the other, any investigation of the particular phænomena can apprehend the changes of the physical side of this twofold being only as occasions of the manifestation of the mental states. It could not explain how it happens that a physical change draws after it a dissimilar mental one only because both have the same subject, and it could develop the universal laws by which the alterations of the one of these series of states depend on the alterations of the other, no better from the unity of the substance acting on itself than would be possible on the supposition of a reciprocal action between two different subjects. It may be that nevertheless in this uniting of all internal and external phænomena into the same reality there is a truth that in another place and a different application will become important; here it appears unfruitful. Not merely unfruitful; for, in fact, a third consideration is already claiming attention, which will prevent us from here making such use as was proposed to us of the view.

§ 4. We must single out as the decisive fact of experience, that compels us in the explanation of mental life to put in the place of matter an immaterial form of being as the subject of the phænomena, that *Unity of Consciousness* without which the sum-total of our internal states could not even become the object of our self-observation. So many misconceptions have gathered round the simple name under which we have spoken of this fact, that we are forced to point out more explicitly what we mean by it. So long as particular causes do not drive us to other conjectures, we are in the habit of supposing for each separate living form only *one* soul, to whose inner life the former yields an enclosing envelope and an array of efficient organs. Everyday life does not suggest the idea that besides the soul that forms our peculiar ego,

other beings exist within our bodies, which in like manner, as meeting-points of ineunt and exeunt actions, elaborate the excitations which reach them into a world of conscious states. Observations on all the higher animals confirm us in this habit, or at least only isolated phænomena more patent to the observation of science than to that of daily life, cast doubt on that unity of consciousness according to which there is one soul to each living form. It is not till we direct our attention to the lower classes of animals that we are first reminded that we are too much inclined to consider this actual relation as universally necessary. The severed parts of the mutilated polyp become wholes by growing into perfect animal forms, in each of which is fully evolved the sum of psychic capacities that belong to the original uninjured creature. But this effect would not follow on any mutilation which we chose to make; the possibility of completion seems to be dependent on the severed part retaining a perhaps insignificant, yet definite amount of internal organization as a germ to be developed. We observe these noteworthy phænomena not merely after artificial section; in many animal species propagation takes place by means of spontaneous severance of the body, the fragments of which, partly in connection with it, partly after their detachment, develop the perfect form and organization of the species. Finally, we see that in other species single individuals are evolved, like the buds of trees, from a common and continuous stem, isolated in the scanty exercise of vital activity within their power, and yet by their mutual connection subject in common to many external influences. These groups of animals show distinctly that the corporeal mass, in which the vitality of the individual soul can manifest itself is not everywhere finished off into a circumscribed whole; at particular points of a connected organic mass there are here several independent beings, whose operations may cross each other in the common stem and afford to each only a limited sphere for the exercise of its spontaneous energy. What here appears as a persistent vital form, may be exhibited in the animals whose species is pro-

pagated by means of division, only in that process, while in those which can be severed into several individuals by artificial section, the majority of the single beings capable of vitality that are united within the limits of one and the same corporeal form, perhaps never find an opportunity of independent development, unless it is procured for them by chance or by arbitrary interference. Section would have cleft in two not the soul of the polyp, but the corporeal bond that held together a number of souls so as to hinder the individual development of each. Though we may be entitled to regard these processes thus, we cannot certainly determine beforehand how far this allotment of a plurality of souls to one common corporeal mass may extend in higher species of animals also. Without here settling a question, the answer to which, in so far as possible, is more fitly reserved for a later part of this work, we must mention that the unity of consciousness does *not* mean that the number of beings animating an organic form is limited, and that it is far from being invalidated by an appeal to the phænomena of which we have spoken. On the contrary, we would maintain, in regard to each of the severed parts of the polyp, that if a soul is in any sense its moving principle, the unity of consciousness must hold good of that in the same sense in which we ascribe it to our own personality.

This sense we now proceed more precisely to define. We come to understand the connection of our inner life only by referring all its events to the one ego, lying unchanged alike beneath its simultaneous variety and its temporal succession. Every retrospect of the past brings with it this image of the ego as the combining centre; our ideas, our feelings, our efforts are comprehensible to us only as its states or energies, not as events floating unattached in a void. And yet we are not incessantly making this reference of the internal manifold to the unity of the ego. It becomes distinct only in the backward look which we cast over our life with a certain concentration of collective attention. On the other hand, the single sensation at the moment when it is produced by the

external stimulus, the single feeling springing from the beneficial or hurtful interference of the external world, even the desires and efforts often suddenly awakened within us by a passing cause, are by no means universally accompanied to any perceptible degree by this reference to the unity of our nature, by which they are mutually related. Of many impressions we remain unconscious when they come into being, and we sometimes detect them in ourselves as if accidentally, after their efficient causes have again disappeared; others remain forgotten during long intervals, and even the express attention which is set to seek them fails to get possession of them; of the manifold contents of our consciousness at one time, many fragments remain disconnected side by side, neither fused into the whole of one identical round of thought, nor placed in a distinct relation to our indivisible personality. Hence the unity of consciousness spoken of can *not* mean that we have a persistent consciousness of the unity of our being, and the inferences which it has been attempted to draw from this assumption are for us inept.

On the other hand, however, there lies in the body of facts which we have recognised, no such difficulty as to render it impossible to infer from the nature of our consciousness the unity of a being conscious of itself. For it is not necessary and imperative that at every moment and in respect to all its states a being should exercise the unifying efficiency put within its power by the unity of its nature; the work done by any power depends on conditions, and may be prevented by such as are unfavourable, without on that account the power being neutralized in virtue of which under more propitious circumstances it would have come to pass. Therefore, even if many of the soul's states remain unconnected, and never are realized in its consciousness as mere states of its substance, no conclusion can be drawn from these facts against the unity of its being. If, on the other hand, the soul, even if but rarely, but to a limited extent, nay but once, be capable of bringing together variety into the unity of consciousness, this slender fact is

sufficient to render imperative an inference to the indivisibility of the being by which this operation can be performed. For the moment I leave this simple idea to its own persuasive power, and reserve the illustration of it till later; but I here add further, that even our knowledge of the above acknowledged fact of the unconnectedness of many internal states is comprehensible only on the supposition of the unity of the cognitive being. It may be that at the moment of sense-perception the relation of the rising sensation to the unity of the ego does not obtrude itself on us, that, on the contrary, we are merged without a sense of self in the matter of sensation; but the very fact of this relation could never afterwards become to us an object of apprehension and astonishment, if, at the very moment of its rise, the sensation had not belonged to the unity of our being, and been retained by it, in order afterwards to be recognised as having always been in cohesion with our ego. Grant that many impressions remain isolated at the moment of their rise, and grant that it is only after-reflection which brings a judgment as to their relation with ourselves, there is yet in that primitive distraction no argument against the unity of our mental being, nay, in the possibility of subsequent concentration, there is constraining ground for holding it to be real.

I would fain, lastly, remove once for all a remaining misconception, from which the train of thought pursued in the preceding observations may perhaps not be secure. For I do not mean that our consciousness of the unity of our being is in itself, by what it directly reports, a guarantee of that unity. Certainly it might, at least plausibly, be objected to that conception, that in the course of our internal development many convictions present themselves with almost irresistible persuasive force, that, in spite of the triumphant clearness with which they take possession of the unsophisticated mind, yet appear fallacies to riper reflection, in contrast to the laws of thought, which alone must remain beyond doubt as to us the inevitable standard of all truth. So too this unity of the ego may be merely the form in which our own being appears

to itself, and just as we do not obtain directly an insight into the true nature of other things from the manner in which they appear to us, so our own being is not necessarily an indivisible unity, because such we seem to ourselves. I will not inquire whether this thought is not one of those over-refinements of accurate discrimination which secretly revolve round the fallacies they would fain avoid; in the form in which it is usually expressed, it does not touch what we here wish to prove. For our belief in the soul's unity rests not on our appearing to ourselves such a unity, but on our being able to appear to ourselves *at all*. Did we appear to ourselves something quite different, nay, did we seem to ourselves to be an unconnected plurality, we would from this very fact, from the bare possibility of appearing anything to ourselves, deduce the necessary unity of our being, this time in open contradiction with what self-observation set before us as our own image. What a being appears to itself to be is not the important point; if it can appear anyhow to itself, or other things to it, it must be capable of unifying manifold phænomena in an absolute indivisibility of its nature.

What is apt to perplex us in this question is the somewhat thoughtless way in which we so often allow ourselves to play fast and loose with the notion of appearance. We are content with setting in contrast to it the being that appears, and we forget that the appearance is impossible without another being that sees it. We fancy that appearance comes forth from the hidden depths of being-in-itself, like a lustre existing before there is any eye for it to arise in, extending into reality, present to and apprehensible by him who will grasp it, but none the less continuing to exist even if known by none. We here overlook that even in the region of sensation, from which this image is borrowed, the lustre emitted by objects only seems to be emitted by *them*, and that it can even *seem* to come from them, only because our eyes are there, the receptive organs of a cognitive soul, to which appearances are possible. The lustre of light does not spread itself around us, but like all phænomena dwells only

in the consciousness of him for whom it exists. And of this consciousness, of this general capacity that makes the appearance of anything possible, we maintain that it can be an attribute only of the indivisible unity of one being, and that every attempt to ascribe it to a plurality, however bound together, will, by its failure, but confirm our conviction of the supersensible unity of the soul.

§ 5. This simple thought would seem to me hardly to need further proof, were there not so many attempts to evade it. For still we hear sometimes repeated the confident assertion that the comprehensive unity of consciousness may be understood as the natural result of the reciprocal action of many elements and their states. Let us therefore try to discover how far such a production of the one out of the many is possible.

The composition of several motions in space into a common resultant has always been the example on which has more or less directly rested any hope for the success of these attempts. Just as, then, two motions of different directions and velocities unite to produce a third simple motion in which is preserved no trace of the diversity that gave it birth, so (it is said) the unity of consciousness is derived as a resultant from the variety of mental elemental motions going on in the different constituents of the living body. But the plausibility of this analogy rests on an inaccuracy in its expression, and wholly disappears when that is removed. For this unquestionable law of physical mechanics refers not to any two movements, but merely to two movements of one and the same indivisible molecule at one and the same moment, the execution of which is required by any forces. The simple validity of the law ceases, and gives place to a more complex calculation of the result to be reached, so soon as we put in the room of the indivisible point a system of several masses, however firmly compacted, and suppose the different forces to act on different points of this united plurality. And just as little is the simple resultant itself, which comes into being in the former, more favourable case, simply some movement having its direction and velocity

subject to law, while the mass remains undetermined by which it is executed; it is of course to be conceived only as a movement of the same indivisible point on which the different forces were simultaneously acting. If one supplies those few complementary ideas which are never forgotten in stating the elements of mechanics, but not usually repeated at length in short references to this fundamental law, one takes in at a glance the hopelessness of all attempts to commend the derivation of conscious unity from the mutual action of a number of parts by means of the trustworthiness of the indisputable mechanical theorem For in this derivation it is just the essential point of the theorem that is commonly missed; the cohesion of the different states of different elements is dwelt on at length, but nothing is said of the indivisible subject in which they cohere, through whose unity it is alone that they are compelled to produce a resultant, and, lastly, as whose state exclusively that resultant can be conceived to become actual. Consciousness floats, like a new being evolved out of nothing, above the mutual actions of the many elements, in unsupported isolation,—a consciousness without any being whose consciousness it can be.

Now let us try to get rid of this defect, and to fix the results to which we may be brought on this path. Let us first suppose that each one of the numerous elements whose reciprocal action we take for granted, fuses within itself the impressions which it receives from others into the unity of a resultant final state,—then the sum of these resultants might indeed in a certain sense be regarded as the total state of the united plurality of elements, but not in the sense of resembling the unity of consciousness of which we are in search. For at bottom that holds good of all active or passive states which we maintain in regard to consciousness: they can with strict accuracy be predicated only of indivisible units. If we imagine a number of atoms immutably combined in whatever way, so that they can only in concert obey any impetus to motion: then, if this whole body moves forward in a straight

line, its motion will still be merely the sum of the absolutely identical motions of its several parts. Nay, it is even going too far to speak of a sum of motions: in reality only the same process is repeated as often as there are atoms in which it can be exhibited, and these processes being in themselves apart from each other, form neither a sum nor a whole. They become such only under one of two conditions. In the first place, if we suppose all the particular movements of these atoms transferred to one and the same indivisible element, they will there gather into the unity of a state, whose subject is the element; but simultaneously the character of the event will have altered, and in place of a total motion of many, there will be only one effect of that, the motion of a unit. Without that alteration the total movement of a combined plurality takes place only under the second condition, which occurs when the one indivisible consciousness of an observer sets in relation to one another the ideas of the several movements, without confounding them, but yet bringing together their abiding plurality under the notion of unity. If we further conceive another system of atoms more loosely connected together and engaged in motions of varying velocities and directions, we should still have to speak of a total motion of the system only in this second sense. We might, of course, fix the amount of motion, which the whole system has at its disposal for transference to an element outside itself, after deduction of the contrary actions that would neutralize each other. But it is still more evident in this example than in the former that the unity of this producible result is not convertible with the total motion of the system itself, for into the latter undoubtedly entered the manifold movements in which its parts met one another, and which have disappeared in the simplicity of the result. There is indeed but one point where this manifold whole is an actual unit, and that is the concentrating thought of the observer. There alone does the past cohere with the present and the future, in reality the one is when the other is not; only in that thought does any beauty of form, any fulness, and any significance of

development truly exist, for only in it properly consist those relations of the one to the other, on which all such merits depend; in reality each part is working as if in the dark, and does not see its position in respect of the other parts, although it may perhaps fuse the influences which it receives from them into the feeling of a state into which it enters. Thus all the operations of a joint plurality either remain a plurality of separate operations, or become truly fused into one only when transferred to the unity of a being as its states. Of consciousness we can say that, as the energy of an indivisible being, it does render possible the composition of the many into the one, but that the unity of consciousness never can spring solely from the mutual action of the many.

From these general discussions we return once more to our peculiar subject. We once again take for granted in the multitudinous connected atoms of the body that internal psychic life which, according to the view from which we started, must be attributed to all matter. Now let a common sensory stimulus, as before a motor impulse, act on all at once, we can yet seek the rising sensation nowhere else than in the interior of each single atom. It will be present as many times as there are indivisible beings in this united multitude, but these many sensations will never coalesce into a joint sensation, unless we suppose in addition to them a favoured being to which all transfer their states; and then that will be the soul of such a body. If again we suppose, as before various movements, so now various sensations, to arise in the several elements of this total, and further, each element to have it in its power somehow to convert its own stimulation into the excitation of another, here too every unit, according to its peculiar position in regard to the rest, will undergo influences from these in its own fashion, and fuse or combine in itself the impressions streaming in all around. Yet the new sensation or cognition proceeding from these reciprocal actions will always have its existence only in the several elements, each of which brings the manifold impressions together to a focus in its unity. There was a

repetition of homogeneous cognition when each element underwent in identical fashion the influences of all the others; here cognitions manifoldly different will have arisen, if the various relations in which the several elements stand to one another bring about in each a particular blending of the impressions that succeed in reaching it. But in the latter case none of them will survey the variety of all the states that have arisen; the sum-total of sensation or of knowledge will as such exist only for a new observer outside, who again collects the scattered facts, in the unity of his indivisible being, into a total image present to himself alone. Just as the spirit of the age, public opinion, does not hover beside and among personal beings, but exists only in the consciousness of individuals, incomplete and fragmentary in those who, without taking any general view, are as it were interwoven with the reciprocal actions among which they find themselves placed, more complete in those who, with critical eye, compare the multitude of characters falling beneath their observation: so here the various mental elements composing this vital system will evolve various views of the whole of which they form part, but the most complete will arise in that element which, in virtue of some original advantage of its nature, or of a favourable position towards the rest, like that of the ruling monad, most effectually collects all the mutual actions of the parts of the whole in itself, and is able most effectually to react upon the impressions thus communicated to it

To this conception we are in truth carried back by the attempt to derive the unity of consciousness from the mutual action of a multitude. Even on the hypothesis of a psychic life in all matter, we come on this path to an alteration indeed, but not an abolition, of the contrast between body and soul. Of course on that hypothesis they are distinguished by no qualitative difference in their natures, but still less do they blend into one; the one individual ruling soul always remains facing, in an attitude of complete isolation, the homogeneous but ministrant monads, the joint multitude of

which forms the living body. It may for the present remain undecided whether this conception of life, as a reciprocal action of souls, does or does not offer greater advantages in the explanation of phænomena than the contrast of mind and corporeal matter, which we have made the basis of our considerations. If the ruling monad is that soul which forms our ego, and whose internal motions we are seeking to understand, the interior of the other monads at least to us inquirers remains absolutely closed; we are acquainted only with the reciprocal actions in virtue of which they appear to us as matter, and only under that designation and with the claims founded upon it can we make use of them in the investigation of particular processes

§ 6. We did not conclude that the soul is one, because we appear to ourselves a unity; but we were convinced of the indivisibility of our being by the fact that *anything* can appear to us. My arguments will perhaps be found more cogent if I bring into prominence the distinctive character of consciousness, which I have hitherto tacitly assumed. The idea of the fusion of several states into one blended state of resultant forces or results springing from the meeting of particular activities, has had a far from beneficial effect on the explanation of internal phænomena; it is worth while to point out how absolutely different is the nature of thought, and how utterly in this sphere are we deserted by the ordinary conceptions of physical science, which we have hitherto seemed to treat as directly applicable to the case in point.

Consciousness nowhere shows anything resembling what we see in Nature, viz. the resultant of two forces producing at one time a state of rest, at another a third intermediate motion, in which they have become merged beyond recognition. Our ideas preserve through all the vicissitudes through which they pass the same content as formerly, and we never find that in our recollection the images of two colours blend into the compound image of a third, or the sensations of two tones mingle into that of a simple intermediate tone, or the

impressions of pain and of pleasure neutralize each other so as to form the rest of an indifferent state. Only when different stimuli, proceeding from the outer world, produce according to physical laws a medium state within the corporeal nervous tract, through whose instrumentality they act upon the soul, does this state (conveyed to the mind as a simple impulse) develope one compound sensation instead of the two several sensations which we should have had, if the stimuli could have reached us separately. Thus to our sense colours are indeed blended at the edges at which they are in direct contact in space; but the images of colours, coexisting in our remembrance without extension and without lines of demarcation, do not run together into the uniform grey, that would be the inevitable result did different impressions blend into one in our souls. On the contrary, consciousness keeps those which are different asunder at the very moment when it seeks to combine them; it does not indistinguishably merge the various impressions, but leaves to each its peculiar character, moves comparing among them, and at the same time is aware of the amount and kind of the transition by which it passes from the one to the other. It is in this act of relating and comparing, the rudiments of all judging, that we have what answers in the wholly different mental sphere to the composition of results in the material world; here, at the same time, lies the true meaning of the unity of consciousness.

When a louder and a softer tone, the same in pitch and timbre, strike on our ear, we hear only the same tone louder, not two tones separately; their effects are coincident in the auricular nerve, and the soul can find in the simple stimulus which reaches it, no reason for a separation into two perceptions. But if the two tones sounded successively, so that the organ of sense could convey their impressions separately, there would no longer arise from the ideas of them, preserved in memory and brought back to consciousness both at the same moment for the purpose of comparison, the idea of a third tone of greater strength, but both would remain distinct

and in mutual contrast, though present without division in the unextendedness of conception. If a third middle tone did arise, it would not be a comparison of both, but only an increase of the materials of comparison for a consciousness that knew how to compare. The comparison really effected consists in our becoming conscious of the peculiar change that takes place in our state, as we pass in thought from the one tone to the other, and in it we gain, instead of a third similar tone, a far greater advantage—the idea of an intensive more or less. Red and yellow mingle when, blending already in the eye, they are conveyed to our soul only as a simple blended stimulus; in our memory those which were separately received remain separate, and there does not arise from them the impression of orange; if it did arise, the effect would be merely to increase the materials for comparison, not to complete the process of comparison. This is completed when we become conscious of the kind of change that passes over our state in the transition from red to yellow, and through that we acquire the new idea of qualitative resemblance and difference. Finally, if we compare an impression with itself, the result is not that from having been doubly thought its strength becomes simply doubled, but that by perceiving the energy of the transition, without observing any difference in its results, we arrive at the notion of identity. There is no reason why these examples should be multiplied; the inner life is sufficiently familiar to inspire all with the conviction that all the higher problems of our knowledge and of our whole intellectual training depend on the forbearance with which consciousness leaves to the multitude of impressions their variety and all the distinctions of their colouring, and that nothing can be so far removed from the necessary habitudes of the soul as that forming of resultant mixed states by means of which we so often and so heedlessly think we can explain the higher advance or even the primitive stages of our internal energies.

These acts of a relating and comparing knowledge hardly

any one will be inclined to regard as performed by an aggregate plurality. So long as the matter under discussion was only that all ideas are collected in the same consciousness, that all exert a mutual influence, driving back or bringing forward one another, one might, at least to some extent, be under the delusion that these phænomena themselves render necessary the unity of their subject. Consciousness might be viewed as the space in which this motley play goes on, and it might be left undecided what is the precise origin of the illumination of dawning knowledge in which it moves. But that most peculiar bond of the multitudinous, the active element that, passing from one to another, leaves both in existence, while it is aware of the kind and direction of its transition, cannot itself be multitudinous; as all actions are united only in the unity of an indivisible being in which they meet, so *a fortiori* does this special method of combining plurality require strict unity in the combining principle. Any attempt to substitute for it a plurality casually combined, could here again only bring us back to the consequences of which we have already spoken, and on which we need not again dwell.

§ 7. The necessity of first of all seeking two distinct principles of explanation for two wholly dissimilar cycles of phænomena, shuts us off from any attempt to derive the inner life, as a self-evident result, from operations of material substances, in so far as material. The other necessity—recognition of the fact of the unity of consciousness, and our discernment of the impossibility of producing that unity from the reciprocal action of any plurality whatever—left us no ground for expecting any help in the explanation of particular phænomena, even from the assumption of a secret psychic life in all that we call matter. We may therefore most simply state the result reached as yet in the traditional form of a separation of the supersensuous soul from the material body, no matter on what the existence or the phænomenal appearance of the latter may itself depend. Our way will still be a long one, and many of its turns may perhaps open up to us new views

in regard to what we can now see only in the outline just mentioned. But we should regard as mistaken any craving for unity that would at once hastily merge this sharp contrast in something higher, for in reality it would only confuse the distinct and necessary conception of it. We do not deny that there may be a point of view so elevated that to those occupying it the distinction between the mental and the corporeal fades away, or may even be held to be a delusion. But there is less advantage to be won for our speculations from the attainment of this point of view, than risk to be apprehended from a premature anticipation of it. Even the toils and struggles of life seem, on a final general survey, as exercises, the value of which does not properly lie in the attainment of an end; earthly aims may shrink into infinitesimal proportions in comparison with the final destiny which we dimly discern; jarring discords of our existence lose their harshness and importance measured by the eternal and infinite towards which our longing eyes are turned. And yet we must continue these exercises, devote to these contracted aims all the ardour of our souls, painfully feel these discords, and again and again renew the conflict concerning them;—our life would not be ennobled by depreciation of its conditions, and of the stage which it offers to our struggling energy. Thus even the contrast between corporeal and mental existence may not be final and irreconcilable,—only our present life is passed in a world where it has not yet been resolved, but yawning underlies all the relations of our thinking and acting. And, even as it will always be indispensable to life, it is, at present at least, indispensable to science. Things that appear to us incompatible, we must first establish separately each on its own foundation. If we have made ourselves acquainted with the natural growth and the ramification of each one of the groups of phænomena which we have thus discriminated, we shall afterwards find it possible to speak of their common root. To try prematurely to unite them would only mean to obscure the survey of them, and to lower the value which every distinction possesses even when it may be done away with.

# CHAPTER II.

## NATURE AND FACULTIES OF THE SOUL.

Plurality of Faculties in the Soul—Defects of this View—Possibility of combining it with the Unity of the Soul—Original and acquired Faculties—Impossibility of a Single Primitive Faculty—Ideation, Feeling, and Will—Constant Activity of the whole Nature of the Soul—Lower and Higher Reactions—Mutability of the Soul and its Limits—The Known Nature and the Unknown Nature of the Soul—Use of knowing the Unknown Nature of the Soul, and the Reason why we seek to know it.

§ 1. THE phænomena which we have hitherto been considering have only entitled us to see in the soul that unknown being whose undivided unity holds together the variety of the inner life: they have not yet thrown any light on the essential nature with which the soul fills up the bare outline of unity, and develops the motley multitude of its states. The only means of solving this question, however, will be to make a more complete survey of internal experience; we have no other insight into the nature of the soul than that which is afforded by inferences from the observed facts of our consciousness. We have thus to conceive its nature as it must be in order that it should pass through what we know in ourselves as its states, and perform what we find in ourselves as its actions. Hence we must start from a comparison between mental phænomena; putting together the like, and separating the unlike, we shall sort the heterogeneous multitude into groups, each of which includes all that have one common stamp, and excludes whatever is of a divergent kind. Mental phænomena differ sufficiently among themselves to make it probable that this comparison, if made steadily from one point of view, will end in discovering several separate groups, for whose peculiar distinctions no common expression can be found. Such slighter distinctions as divide in each department the phænomena that fall within it while

leaving untouched their more general similarity of character, are indeed to be conceived as dependent on the variable external conditions by which the soul's energy is brought into play. But for the whole of each department of phænomena we must attribute to the soul a peculiar faculty to energize in that manner which predominates uniformly throughout all its component parts. Accordingly we must suppose the soul to possess as many separate faculties as there are groups of phænomena left unresolvable by observation; but we shall at the same time be left with the conviction that they are not imprinted in its nature as an unconnected assemblage of faculties, but that there is between them an affinity by which, as various manifestations of one and the same being, they are harmonized into the whole of its rational development.

Thus has grown up the familiar doctrine of the mental faculties, in its initial stage forming part of the ordinary view of everyday life. Long cherished as a favourite subject of speculation, and repeatedly expanded into elaborate systems, it has gradually fallen into disrepute, and is now hardly looked on as more than a first and preliminary review of the facts preparing the way for an investigation by which it is to be followed. And in fact we must acknowledge that it does not suffice to explain the phænomena. It would be a delusion to suppose that we possess in the notion of mental faculties a means of investigation as efficacious as that won by physical science in the notion of energy. What makes the latter fruitful is lacking to the former, which nevertheless repeats all the faults owing to which the kindred notion of vital energy exhausts itself in vain efforts to explain the phænomena of life. Where physics applies its notion of energy, it is not content with defining it by the character and appearance of its result; it does not speak generally of powers of attraction and repulsion, but adds a law according to which the amount of its efficacy alters, when precisely definable conditions to which it is attached undergo an equally measurable alteration of value. Only thus can it calculate the exact amount of work which under given circumstances each force will perform; only thus

does it succeed in linking to the unvarying energy of the same force the most various effects, at first distinguished only by their difference of amount, but leading, as they meet with other effects determined in the same manner, to a countless multitude of the most dissimilar events These advantages are not yielded by the notion of mental faculties. While it is exclusively derived from the general form common to a number of heterogeneous processes, each of these again reciprocally determines of course only, in general, the form proper to its own manifestations. Thus unquestionably the ideational faculty will give rise to ideas, the faculty of feeling to feelings; but there is a lack of rules going beyond this idle certainty, and guiding to a conclusion as to what idea will arise under what circumstances, or what will take place when several manifestations of the same faculty meet.

Even physical science has not everywhere been able to define the laws of action of its forces; but, where this is the case, men of science freely confess that they have not yet advanced so far as to be able really to explain the phænomena. Yet even here the notion of energy offers advantages not to be found in that of mental faculties. The actions of natural forces are always comparable with each other; for, however marvellously different may be the internal states of elements, the external changes in which they become apparent may always be ultimately reduced to motions in space, differing only in velocity and direction. Hence it is possible to apply to them the universal rules of mathematical calculation, and definitely to formulate the result produced by the meeting of several forces in the same element; from two simple motions in a straight line we see sometimes the equilibrium of rest, sometimes a uniform velocity in an intermediate direction, sometimes continued revolution in curved lines. And from this comparability of the forces it is always possible, even when their laws are not known in detail, to draw from the character of their action at least a probable conjecture as to the result of their conjoint working, and to fix its presumable value within definite limits The mental faculties, however, seem

incapable of comparison with one another; for each of them was based only on the peculiar character of its manifestations, which it seemed hopeless to bring under a common category with the distinctive stamp of the others. Thus how an act of the ideational faculty will act on the faculty of feeling, how, further, the latter will promote or hinder efforts, we can guess pretty well without science, by simply following the instinct of our inner experience; but there is in the notion of these faculties nothing to enable us to raise the tact of sound judgment to a clear scientific insight into the mutual dependence of these processes.

One further remark we must add. Physical science states precisely the conditions under which exclusively the assumed forces can exhibit efficiency. It distinguishes those fundamental forces which are conceivable as perpetually inherent in bodies, because their conditions are perpetually realized, and which therefore, ever ready, seem to wait only for an object in which their influence can become visible; it sets over against them those other capacities of action which an element does not originally possess, but under certain circumstances acquires, and which therefore, as they now appear and now again are lost sight of, have a history that can be scientifically traced. Even here the psychological doctrine finds itself at a disadvantage. It could not represent any of its faculties as an energy constantly exercised by the soul; a perception that had not yet found its object, a feeling of no particular quality, a volition without a purpose, seemed too glaringly preposterous notions; it was felt that they are all operations, the performance of which the soul requires to be incited to and qualified for by definite impressions; on this very account they were, under the name of *faculties*, put in contrast to *forces*. But the history of their genesis from the reciprocal influence of such impressions and the nature of the soul, has been too little investigated, and the want of such information is not to be supplied by an arrangement of the different faculties as superordinate and subordinate, according to the comparative universality or particularity of their manifestations. For in this

way much always presented itself as original, that is really acquired only by means of the progressive growth of life,—much as simultaneous, that in the actual development of intelligence occurs at various successive points. Finally, the vague notion of a slumber and subsequent awakening of particular faculties was not fitted to make up for the general absence of insight into the simultaneous action and mutual co-operation of their effects.

Thus the proper end of scientific investigation was lost sight of—that search for causal connection, by which each event of mental life is shown rising out of its antecedents and again modifying that which is its immediate consequent. But every science that values its future applications must be careful to secure for itself the possibility of conjecturing the past and the future from the present state. Where, as in the case of mental life, the bewildering complexity of the conditions concerned must make the complete solution of this problem impossible, we must at least strive to gain such a view of the causal connection as may teach us to discern the outlines of the future and the bases of the present in the past with more precision than belongs to the indefinite estimate of a natural instinct. Such knowledge alone would enable us in education to set in motion the counter-forces that are fitted to alter undesirable results for the better. But of this problem the doctrine of the mental faculties offers no solution; it really does no more than repeat faintly and from afar that general image of phænomena which we observe directly within ourselves in all the variety of its vivid local colouring, while having nothing to say about the agencies beyond our observation that produce this scene of manifold activity no less secretly than the imperceptible vibrations of the ether give rise to the world of light and its marvellous refractions.

§ 2. Now one might be inclined to ascribe this deficiency not to the fundamental idea, but to the imperfect elaboration of the doctrine. Perhaps, after careful observation has discriminated from the original mental faculties those which

seem to be merely capabilities acquired in the course of development, it will succeed in discovering the laws regulating the activity and mutual influence of those fundamental powers. But, before allowing ourselves to cherish this hope any further, we must refer to an objection by which its existence is threatened.

Any plurality of original faculties, it is urged, is opposed to the soul's unity; to start with the assumption of such is as incompatible with accuracy of thought as unfruitful for the purpose of explanation, the satisfaction of which would be curtailed by assuming that a variety of operations (which it must be the task of science to show proceeding from a single source) are co-ordinate and require no light thrown on their origin. People have become so much accustomed to regard this as the most decisive objection to the doctrine of the mental faculties, that we almost hesitate to advocate an opposite opinion. Those faculties have no doubt been often spoken of as if they were ready-made dispositions, impressed one alongside of another on the soul, but without any further mutual connection; and over against this incomplete description is set the rightful demand to regard the various properties of a being as so many different manifestations of its one and identical nature, wrung from it by the reciprocal action evolved between it and other elements. But perhaps, in opposition to this slovenly mode of speech, the novelty and value of the objection in question have been too highly rated. That bodies are coloured only in light, hard only when their resisting force has been called forth by the pressure of a weight, fluid at one degree of temperature, solid at another, —all these are reflections suggested by the most ordinary experience. It was easy to pass from them to the conviction that at least the sensible properties of things are not fixed determinations stamped upon them, but changeful appearances, coming into being and passing away, which we see their nature successively assume under altering conditions. But it was much more natural still to apply the same view to the faculties of the soul, whose very name suggested that

they were to be regarded not as actualities, but merely as the different potentialities of expression standing at the disposal of the one nature of the soul, when it is roused into activity by various stimuli,—the necessity of whose co-operation was not forgotten. Thus it will perhaps be well to leave out of view many awkwardnesses of expression that have been allowed to slip into the question, and to allow to this violently assailed doctrine that it arose naturally out of the very conviction which is opposed to it by the objection referred to. The first part of it at all events it does not deserve; it too looked on all faculties as results of the soul's one nature, only it did not believe that their interdependence is so close that from one all the rest proceed. Now, whether it was right here, and whether it did not unduly curtail the claims of science, in being too easily satisfied with the assumption of original capacities and neglecting to trace them actually back to one source, is another question still to be determined. But even as to the second part of the above-mentioned charge we cannot fully share the opinion now widely diffused.

Assuredly our science can go no further than our means of knowledge, and it must accept as a series of given facts what it finds itself unable to deduce from a single principle. To seek completeness here at any price only leads to the temptation of unconsciously curtailing somewhat the matter of fact, in order more easily to explain the more manageable remainder. Even in this psychological problem there is such a temptation. We recognise the justice of the requirement that all the manifestations of a being shall be regarded but as various results of its single nature, but we are impotent actually to carry it out in science. Given a few points in the heavens occupied at different times by a comet, we hence infer the path on which it must farther travel; the laws of the celestial motions do not permit of its occupying these points without of necessity subsequently also passing through the others that form along with them a regularly determined curve. The like consistency we take for granted in the nature of the soul. If its nature manifests itself in response to one stimulation in

a given manner, the other manifestation by which it will respond to a second is no longer indefinite or arbitrary, the one step decides all the others, and by whatever impressions of various kinds it may be affected, its conduct in regard to each of these is determined by that which it followed in regard to the first. Thus in it too the manifold reaction drawn forth by stimulations of various kinds will not be mutually unconnected, but form the harmonious whole of a nature expressing itself in consistent manysidedness. But this assumption, no less imperative here than in the former case, is not as fruitful here as there. We know that for the comet the laws of Attraction and Persistence are the bond by which all the parts of its course are brought into demonstrable connection; for the soul we would need a far more deeply grounded law, that should enable us to conceive of different energies, unlike in their forms of manifestation, as nevertheless parts of one and the same course of development. We ought to be able to say why a being that in consequence of the undulations of the ether sees light and colours, cannot but hear tones when atmospheric vibrations act on its organs of sense, or why its nature, while evolving intuitive but indifferent perceptions under certain impressions, must under others experience feelings of pleasure and pain. We hardly venture on the express assertion that this extraordinary problem has never yet been solved, and that we see no prospect of even the possibility of its solution; every system of psychology acknowledges that there must be in the nature of the soul this unbroken consistency, but none can formulate its law. The requirement of such unity in the soul will therefore always remain a guiding consideration by which the general sequence and conduct of our inquiries is controlled, but in carrying out our explanations we must be content to accept as a matter of fact the variety of psychic manifestations.

The theories set up in opposition to the doctrine of faculties have in fact ended in the recognition of this variety. But they have made a distinction between the plurality of the simple and as it were original energies, that proceed not one

out of another, but all alike from the nature of the soul, and those higher activities which, not belonging to it originally, proceed from concatenations of the simple states, and to refer which directly to peculiar faculties is to curtail science of their explanation. The doctrine of the mental faculties cannot in all cases vindicate itself against this charge. When, for instance, we find judgment and imagination placed among them alongside of one another, we must unhesitatingly grant that these two do not form part of the original mental stock, but are capabilities developed in the advance of life, the one slowly, the other quickly. We must at the same time acknowledge that to explain their growth nothing is needed beyond the laws of association, according to which every percept may remain in memory, and, after having been lost to consciousness, may be restored to remembrance by the resuscitation of others with which it was formerly associated. We do not seek in the soul, before it has had experience, the capacity of readily and accurately apprehending resemblances and differences in impressions, and at once ranging each in the general category answering to its character. But every percept retained in memory, when it is recalled by a new and similar one, brings back to consciousness the others with which it was connected, but which are strange to the new impression, and thus invites to discriminating and associating comparisons. The repetition of this simple process increases the number of points of view, the subsequent remembrance of which meets new observations and assists their collocation in the circle of kindred ideas. Thus soundness of judgment is gradually and progressively developed, all newly acquired knowledge being by degrees added to the stock of discernment, by means of whose advancing ramification the task, which was at first difficult, and often fruitless, comes at last to be performed with the ease of a seemingly innate faculty. Still more erroneous would it be to refer the operations of the imagination to an innate power,—operations so endlessly varied in appearance that for their performance the consistency of a single energy regulated in its exercise by a constant law

might be deemed far less favourable than a general arbitrariness of action. The ground of this power really lies, not indeed in any such absence of law, but in the fact that its results are not brought about by any special faculty. A happy variety of experiences has put at the disposal of the train of ideas an abundant store of impressions; other favourable circumstances, connected with the bodily development and the disposition of mind, concur to leave to its action all that mobility with which it spontaneously evolves the most diverse combinations of ideas, brings together those which are akin, sets in contrast those which are dissimilar, and carries on trains of ideas already begun. Thus both these faculties have their history; we can trace their advance by means of increasing experience, their deterioration in consequence of the poverty of the impressions received, their perversion from a one-sided conduct of life and from the influence of morbid obstacles, and in order to explain these results we need not assume special capacities appropriated to these operations. Both presuppose the energy of other powers for the performance of their functions; but from these their peculiar tasks can be fully explained.

§ 3. Now, can we carry further this speculation, so that finally there should be left only a single primitive mode of mental manifestation, from which, as from a common root, the other apparent faculties should proceed? Can the latter resemble leaves, blossoms, and fruit, which, all alike products of the same power of growth, owe their diverse forms partly to the variety of external influences, partly to the propitious effect of circumstances, whence it comes that the higher product can start from the completion of the next lower? To this question the older psychology returned a negative answer; it was confident that Feeling and Will contain peculiar elements, arising neither from the nature of Ideation nor from the general character of Consciousness, in which all three take part; they were accordingly co-ordinated with the faculty of Cognition (or Ideation) as two equally original capacities, and more recent conceptions do not seem to be successful in

refuting the grounds on which this triad of original faculties was based. We could not indeed wish to maintain that ideation, feeling, and will share between them the realm of the soul, as three independent series of development springing from distinct roots, each growing on unconnected with the others, and coming in contact with the others in varied action and reaction only in the final ramifications of their branching growth. It is too obvious from observation that, in general, incidents in the train of ideas form the points of junction of the feelings, and that from these, from pain and pleasure, are evolved motions of desire and aversion. And yet this evident connection does not dispose of the question whether here the preceding event does indeed give rise by its own energy to that which immediately succeeds, as its full and complete efficient cause, or whether it only draws the latter after it, as an exciting occasion, from acting partly with the extraneous force of a silently co-operative condition that eludes our notice. This doubt must be set at rest by a more accurate analysis of the actual data. Where we find actually given each several germ and constituent of that which is to be, and these germs further in a state of motion, from which, if prolonged, the new form of the subsequent result must of itself emerge, we may regard what preceded as the sufficient cause of the latter. Where, on the contrary, there is a residuum that cannot have been produced by the conditioning circumstances, but has been added to them as a foreign accretion, we shall conclude that those circumstances did not form the entire ground of the succeeding phænomenon, but that, unnoticed by us, a condition lying outside, which we have now to seek, came in to make them complete.

A comparison of these mental phænomena forces us, if we are not mistaken, to adopt the latter hypothesis. If we look on the soul as a merely cognitive existence, we shall, in no situation—however peculiar—into which it may be brought by the exercise of that activity, discover any sufficient reason why it should depart from that mode of manifesting itself and develop feelings of pain and pleasure. Of course it may

seem, on the contrary, that there is nothing so self-evident as that unreconciled antagonism between different ideas, whose contrariety does violence to the soul, causes it pain, from which must spring an effort after recovery and improvement. But this seems so to us only because we are more than cognitive beings; the necessity of this sequence is apparent not in itself, but from the invariable use and wont of our internal experience, where we have long been accustomed to it as an inevitable matter of fact. This alone makes it possible for us to overlook that in truth between each preceding and each subsequent link in the series there is a gap, which we can fill up only by bringing in some as yet unobserved condition. Apart from this experience, the merely cognitive soul would find in itself no reason for regarding an internal change—even were it one fraught with risk to the continuance of its existence—otherwise than with the indifferent keenness of scrutiny with which it would look upon any other conflict of forces; further, should a feeling, arising from other sources, set itself alongside of the perception, the merely feeling soul would yet even in the intensest pain find in itself neither reason nor capacity for going on to an effort after alteration; it would suffer, without being roused to will. Now this is not so, and in order that it should not be so, the capacity of feeling pleasure and pain must be originally inherent in the soul; also the separate events of the train of ideas, reacting on the nature of the soul, do not produce the capacity, but only rouse it to utterance; moreover, whatever feelings may sway the soul, they do not beget effort, they only become motives for a power of volition which they find existing in the soul, but which, were it absent, they could never inspire. We should be by no means content to accept in place of this conviction the concession with which we might be met, —that to be sure any actual state of the train of ideas is not itself the feeling of pain or pleasure or the effort flowing from it, but yet that feeling and effort are nothing else than the forms under which that state is apprehended by consciousness. We should have, on the other side, to add that these

forms of apprehension are themselves not unimportant accessories, to be referred to by the way, as merely occurring along with the facts of the train of ideas, in which alone the kernel of the matter lay; on the contrary, the essential part of the phænomenon is just this mode of manifestation. It is *as* feelings and efforts that feelings and efforts are of consequence in mental life, the significance of which lies not in the fact that all kinds of complications of ideas occur, of which men may incidentally become conscious under the form of feeling and effort, but in the fact that the nature of the soul renders it capable of bringing anything before itself *as* feeling and effort.

These three primitive powers would thus stand as progressive grades of capacity, and the manifestation of the one set free the energy of the next. Yet in this representation we would acquiesce only while it is clearly kept in mind that what we know as three is nevertheless but one in the being of the soul. The soul does not enter even into its own manifestations in so fragmentary a fashion that one of its parts can be awake while the others are dormant; on the contrary, in every mode of its action the whole soul energizes; nay, even in ideation not merely one side of it is active, the whole expresses itself in a one-sided way, because it cannot respond to a definite excitation save by a definite power of expression. When we compare four with five, it is at once apparent that the former is a unit less than the latter, but not that four is also the half of eight and twice two; further comparisons are required in order that these relations may be recalled; yet in each the whole nature of four is displayed, only one-sidedly, in that direction alone for which occasion was given to it. Or let us return once more to a comparison already made use of. If we look at a moving body at a single point of its course, we cannot tell with what direction and velocity it is passing through this point, and nevertheless at this very moment it exhibits in full force the motion which at the next will determine the continuance of its course. When we observe the soul only in the act of cognition, its whole nature is not uttered for us

in this one element of its life, from which at the next moment a transition to feeling and effort may take place; nevertheless in this mere fragment of its course of development the whole nature is active. Divine intuition would not need to see a body move through a considerable part of its course, in order to know its motion,—it would immediately be cognizant of it at any indivisible point; even so, in each several manifestation of the soul it would see its whole nature present, and discern the inherent necessity that under different conditions must lead to different modes of activity. Our human minds must be content to exhaust this fulness gradually, and to remember that while we see a plurality of capabilities, unity of being is a fundamental attribute of the soul. At the same time, we have no ground for regarding this hypothesis of different faculties merely as an expedient suited to the weakness of the human intellect; on the contrary, it does in a certain sense correspond to reality. It may be that even divine intuition would find in the notion of cognition alone no necessity why feeling must spring from it, it would only, with greater clearness than we, see in the whole rationale of psychic life the principle in obedience to which the two phænomena coexist and succeed one another, even as in a poem the pervading Idea binds together firmly and with constraining power constituent parts, no one of which could have spontaneously evolved the other from itself.

§ 4. Perhaps we have lingered too long over these reflections, but they so directly concern our most fundamental conceptions of the life of the soul that we must still devote a moment's consideration to the general view of mental phænomena flowing from them as a direct consequence. We have said that on any theory we must conclude by recognising a plurality of modes of psychic manifestation not reducible to one another. One system, however, to which psychology is indebted for great advances, limits this recognition to the reactions developed by the soul in direct correspondence with external stimuli, that is, to simple sensations. It, too, regards these primitive manifestations with which psychic life com-

mences, as not reducible to one another, and it does not profess to be able to say why a being susceptible to light and colours must apprehend other impressions as tones. All other higher energies, on the other hand, arising in the elaboration and mutual action and reaction of these internal states, it supposes to spring wholly out of them; after the soul has once produced from its own nature the original material, the world of sensation, its creative activity ebbs; it leaves these products of its working to themselves and to the universal laws of their reciprocal action, without further interfering with its whole nature, or giving to the relations brought into play new applications not naturally arising from them in virtue of the logical sequence of their mechanical course. Thus the soul is but a stage for the mutual action of sensations and ideas, of course one that accompanies with consciousness all that takes place on it, but that does not exert on it much influence beyond the enclosing and keeping together possessed by every frame with regard to the picture within. This is the point where our view diverges. Not only once for all, not only in the development of the simple sensations is the soul active after this creative fashion, even if these first products are to be ascribed to an orderly mechanism, and if the train of ideas, with its associations and separations, its forgetting and recollecting, arises spontaneously, without any fresh impetus given by the soul, yet that is not the whole of the mental life, and the higher energies, which constitute its true worth, do not proceed spontaneously from this mechanical working. The determined course of these internal events brings merely occasions which, solely from reacting on the whole and ever present nature of the soul, draw forth from it new forms of action, which by itself it could not have produced. The position of the soul in respect of each one of its internal states is the same as it was in respect of the external stimuli to sensation; to each it can respond with a form of energy which it is impossible to derive from those states, because in fact it does not reside in them alone, but which on the contrary can be connected with

those states only after experience has taught that this new form of action is the very thing that has been awakened in the soul's being by them as stimuli of a superior order.

We will not shrink from repeating the same thought once more as suggested by a natural and yet hazardous comparison of mental life with the development of an organism. The soul does not grow as does a plant. The form of the latter comes forth from a number of essentially distinct and independent parts, united externally in a definite form, which, according to universal laws of Nature, produce the gradually advancing conformation; nay further, the life of the perfected plant is a sum of actions going on between different parts that retain their independence, and, as in the life of a society, assume definite modes of procedure in virtue of the position and the activity of their co-operant members. A comparison of the several elements of psychic life with these parts must be made with cautious limitation; for these elements are not independent atoms, but mere states of a single being from which they cannot detach themselves. Hence they have not an indifferent stage, on which to give themselves up undisturbed to their reciprocal actions, subject to nought save the might of a universal mechanism. On the contrary, the very field of their action is even itself capable of stimulation with reference to their subsequent relations. The nature of the soul does not, after having once for all produced them, thenceforth serve merely as a passive stage for their free motions, as in fable the earth does in respect of the animals brought forth by it; on the contrary, it feels every movement of the train of ideas, and is roused by this now and then to act itself, and to introduce into its apparently arbitrary play new elements, which cannot be explained from itself alone. This is not absence of order, but that order of a more complicated kind, which we have already indicated as possible in general, and which only experience could assure us does not in this form occur in the material world. Hence in the development of an organism the effect to be produced by the reciprocal action of two elements is wholly determined by the universal

laws of Nature and the actual circumstances of the moment; in mental life, on the other hand, to every pair of states and to the laws governing their reciprocal action the nature of the soul has to be added as a constant fourth element, by which the coming effect is conditioned and modified, somewhat as the calculation of a motion made for a vacuum would be modified by taking account of a resisting medium. There may certainly be series of changes within us, the course of which is not affected by any interference of this fourth element, and these will seem to unroll themselves one out of another in a mechanical course; but only accurate internal observation can inform us as to the extent of this mode of procedure, which we are not entitled to assume as universal.

§ 5. We quit these considerations, leaving for a future occasion the drawing of certain inferences from them, and apply ourselves to a long-foreseen difficulty, which is associated with an assumption tacitly made by us. It is clear that we have placed the soul under the category of beings capable of excitation. Its nature does not struggle into activity spontaneously and without foreign excitation, nor can it thus determine the end and direction of its action, but impressions from without rouse it to reactions, from whose further operation springs the variety of the inner life Here the peculiar form of the manifestation flows from the peculiar nature of the soul, which is the abiding source of sensation, of feeling, of effort; the stimuli are nothing more than the motive influences determining the definite sequence of its manifestations, and directing its capabilities undecided in themselves. But we cannot hold this view, it would seem, without ascribing to the soul a mutability surely antagonistic to that strict unity which appears to have no room for variation. This reasoning we cannot gainsay; unquestionably an external stimulus compels a reaction to develop itself only when it produces a real impression on the soul so as to affect its nature. The mere threat of disturbance cannot rouse the soul to defensive activity; for that which is threatened, so long as not experienced, is for the object of the threat nothing; so soon

as he is aware of it, it has already effected a change in him. If it is contrary to the laws of our thinking to suppose that impulses to a variety of actions are spontaneously evolved from the unchanging unity of a being, we must acknowledge that the soul in action is different from what it was when at rest, for nothing but its alteration can be sufficient reason for an altered procedure.

It is impossible to evade this charge, and to vindicate the soul from mutability by an expedient similar to that which enables physical science to look on material atoms as absolutely rigid and immutable subjects of the most diverse phænomena. As objects of vision at a distance, coalescing in space, unite to form a single impression, and as they come nearer fall asunder once more into a plurality of separate parts, so may the course of Nature consist for us, its observers, of a multitude of apparent changes, which, nevertheless, have really left external objects what they were. Inasmuch as the atoms, internally absolutely invariable, enter into changing and manifold relations to one another, and are continually altering in their situation, distances, and motions, they produce on us impressions of a like changeful nature, and, while in fact rigid and impenetrable, seem to our undiscriminating observation sometimes to be fused together, sometimes to be detached, sometimes to assume quite different properties. But if we thus refer the changes in the outer world to an illusion produced merely in ourselves, while in reality nothing more than unessential relations change in the immutable elements, we cannot further hold that the rise in us of this illusion is also merely an illusion, which, to a second observer, would apparently involve an alteration in our being, but does not really do so. On the contrary, the observer does really undergo alteration, not of his external position, but of his internal state, when he apprehends in cognition the changes of the external world, and passes from one idea to another. If, then, we could succeed in wholly eliminating variability from the external world, the more inevitably would it adhere to the nature of the soul. Let us then grant this variability,

and give up the vain attempt to discover some expedient by which the property of immovable invariability may become compatible with the character of a being destined to internal development. We do not think we shall by this concession lose anything that in the interest of investigation we ought to retain. When we seek the subject of a cycle of phænomena, we must indeed conceive it as stable and strong enough to offer in itself a sufficient point of support to the various events of the cycle, but we have no ground to attribute to it the rigidity of absolute immobility; on the contrary, to do so would be to render the conception of it useless. In onesidedly guarding its stability, we would have disqualified it for performing the much more important function of acting as a centre for the exeunt and ineunt actions of which the cycle of phænomena to be explained consists. We need add but a few words, in order to dispel the apprehensions that may be awakened by this idea of a variable soul.

First and foremost it does not involve any risk of a meaningless variation, of a perpetual succession of new states in whose flux the unity of the original being must wholly disappear. Nothing in the world is so indifferent and impotent as to receive its character merely from external impressions, and itself to serve simply as the means of fixing the stream of content in the actual world by its hard reality, like the hook that holds firmly yet indifferently the most various garments. Nothing allows itself to be forced from one form to another by a series of external influences in such a way that at the end of a number of metamorphoses no trace of its former nature can be found. What a being seems to be subjected to from without, is in reality always a manifestation of its own active nature, called forth indeed but not made by the foreign impetus. Hence at every moment of its series of changes the present state of a being is a concurrent—perhaps the most influential—condition determining the effect of the next impression. Now there is nothing to hinder us from conceiving the original nature of a being powerful enough to make its influence felt as the most effective through all the links

of a prolonged chain of changes, and thereby to bring them all into a consistent sequence, as little destitute of internal unity as the melody that is expanded into a number of successive variations. I know not what could induce us to require of a substance forming the ground of fluctuating phænomena more than this kind of unity; the soul, however, offers more It is not only the subject of its phænomena, but also knows itself as such; and, inasmuch as it retains a remembrance of its past experience along with the impressions of the present, it not only presents to an external observer the spectacle of a consistent series of changes, but itself gathers the different developments of its mutable nature into a unity of higher significance than could ever belong to the unyielding rigidity of an impassive substance.

Here we have done nothing more than indicate the general form in which we would take up this question. An accurate review of the actual phænomena of psychic life would show that it is far from manifesting the large amount of variability that might be vindicated on this line of thought. In Nature, as we have already seen, no permanent alteration takes place in the atoms, at least none of such a nature as to manifest itself by new modes of external action; when the altering conditions cease to act, the old properties exhibit themselves afresh. This certainly is not always the case in psychic life, whose capacity of development, on the contrary, depends on perfecting the reactions by habitual exercise. But we are about to meet with an extensive sphere in which its uniformity of demeanour approaches to that of physical effects. Sense-impressions, however often they may have already been experienced, always excite the same sensations; red remains always red, pressure and heat are always painful, and the same corporeal necessities call forth always the same efforts. All this is so self-evident that to mention it may seem strange. And yet, as a matter of fact, every single sensation is an alteration in the soul's being; that its nature should be capable of so adjusting the disturbances perpetually caused in it by countless impressions

that it can encounter each subsequent one with undiminished composure, is a fact easy of comprehension as regards its adaptation to the ends of mental growth, but the mechanical effectuation of which—if we may say so—is not at once to be understood. We may remark the same steadiness in the laws according to which memory and recollection retain, associate, and recall ideas; moreover, the modes of procedure of the understanding in associating and forming judgments on impressions received remain unaltered. Everywhere we see that the numberless influences exerted on the soul, while they cannot but produce some change in it, yet do not affect the steady and consistent exercise of the energies with which it reacts on and modifies these impressions; these energies seem only to gain greater dexterity with growing exercise by which they have become familiar with the complexities of the objects on which they have to act. So little do we see the alteration of the soul passing into indefiniteness and chaos, so conspicuously, on the contrary, do we see the continual moulding reaction of its fundamental nature manifested, that we need hardly have spoken of its alteration except for the logical interest that would not allow us to associate its development with the contradictory notion of internal immobility. But, in truth, so great, in respect of its significance and its value, is the consistency of the internal development, that it ever presents the spectacle rather of unbroken identity than of progressive transformation.

§ 6. In what, then, does that consist which remains identical in this development? In what that primitive being and τὸ τί of the soul the more precise delineation of which seemed to be promised at the beginning of this chapter? We would answer, As every being becomes known only through the consequences by which our observation finds it attended, so also of the soul we can say no more than that it contains the capacity for this development. This answer will satisfy no one. All cognitions of ideas, all thoughts, feelings, and efforts, it would be urged

against us, are but actions of the soul, by whatever agency drawn from it; but we seek to know not how the soul acts, but what it is in itself in order to be able so to act, and what must be its fundamental nature since such capabilities lie latent in it. In reply to this pointed query it would be simplest to confess our conviction that what the soul is we never shall know; but by such a confession we should create the impression that through this ignorance we must lose much that is of importance for our investigation, and that in regard to the soul a difficulty is to us insoluble, which is easily removed in regard to all other things.

How little the latter is the case appears on a hasty review of the knowledge which we think we have as to the nature of material things. If we complain that we never come to discern the essence of the soul as it is in itself, and apart from all the special conditions that determine it to special manifestations, we must include in the same complaint our ideas of all other things. We think we know what water is, what mercury is, and yet we can assign to neither constant properties belonging to it, apart from all external conditions. Both at an average temperature are fluid, both at an elevated temperature gaseous, both at a low temperature solid; but, apart altogether from temperature, what are they? We do not know, we do not even feel any need to know, since we perceive that nowhere in the universe can either of the two substances escape from the influence of these conditions; we are therefore content to regard water as the body which at one particular degree of temperature becomes solid, at another boils, and which further proves its own identity by the unvarying character of its reactions under like conditions. The same holds true of all that we observe by means of our senses. We become acquainted with everything first in one of its single possible states, and this we look on as its complete and permanent character, till experience shows us that different conditions determine different states. Then we group together the various phænomena as the manifold varying forms of one and the same being,

which we continue to call by the same name, although we no longer distinguish it by a single definite property, but conceive it as the unknown something which is capable of assuming successively various forms within this cycle, while never passing out of it, and becoming something different. There is nothing so stable and immutable that it can escape this destiny; all our definitions of real objects are hypothetical, and they never denote the thing but as that which, under different conditions, will appear in different characters. In granting, then, that the essence of the soul is unknown, we do so only in a sense that includes the impossibility of saying what would be the essence of anything in the entire absence of the conditions that are the exciting occasions of its manifestations. Just as impossible as to tell how things look in the dark, is it to know what the soul is before it enters on any of the situations in which alone its life unfolds.

§ 7. Here, however, we seem to have gained nothing beyond a qualification of the reproach of ignorance against psychology from its being shown to share it with all the rest of human knowledge. But if it be true that the essence of things in this sense is to us unknown, is it also true that we lose much by this ignorance, and is it in this essence which eludes our grasp that we must seek the essential that we would not willingly fail to find? I do not think this question need be answered affirmatively,—indeed we treat it differently in life from what in science we sometimes think we must do. In the sum of another man's knowledge, the tone of his mind, the dispositions of his character, and the peculiar action and reaction of these elements on one another, we think we have presented to us his entire personality. If our acquaintance with him is such that we have mastered these items, we do not fancy that we should gain insight into the innermost core of his being, by his being set before us as he was originally, before in the process of growth he had acquired his present highly developed internal existence, or as he is now at bottom, and

would even now show himself to be, if all the results of his past life, as well as all the conditions by which he might still be influenced, were removed. We acknowledge, indeed, that this mental life could not have developed itself, had there not been previously a primitive soul as yet unexpressed for the influence of the vital conditions to act upon as they came into being; but this, which in other cases we look on as the peculiar and fundamental essence of the thing, we here regard as an indispensable, yet in itself worthless pre-requisite, as a necessary means of that development which itself contains all value and all essential significance. It seems to us that the true essence lies in that which the subject of the development has become, and no more than we believe we possess in the unfolded and blossoming plant something inferior to the simple and shapeless germ from which it sprang, do we here feel any inclination to look with regret on the ideas in which we share, on the feelings and efforts in which, with all the ardour of our sympathy, we take part, as a poor substitute for the vision of the undeveloped, primitive τὸ τί of the soul.

If, however, we find it so hard utterly to relinquish the search after this object which we can never find, this arises from another demand that lurks in the inquiry concerning the essence of a thing. The essence is held to be not merely the germ out of which the being as it subsequently appears is evolved, and in which it is potentially contained; it must likewise be that which makes the potentiality actual, which gives to it—in itself a mere object of thought—that unyielding and vigorous reality in virtue of which it takes its place in the world of things as capable of acting and being acted on. The essence is at the same time the bond which by its unchanging nature gathers into itself the several phænomena, and makes it possible for our ideas and all our internal states to be maintained, to endure, and to come together into fruitful mutual action. It thus appears that in the soul's essence we seek not only the basis of the form and content of internal evolution, but still more perhaps

the cause that makes both actual. What we desire to know is how it comes about that there can *be* this inner life, by what talisman the creative world-spirit succeeds in forming at the centre of these changeful phænomena something firm and stable, that nurtures them, bears them up and gives them support, like the skeleton to whose rigid framework the outer form with its bloom and beauty is attached. This problem of course no cogitation can solve; we shall never discover how existence and its modes originate, or what it is of which things consist. But then this question could be of moment to us only if our knowledge were to be applied to the creation of the universe. Its allotted task, however, is simply to apprehend what already exists, and it is ready to acknowledge that all existence is a mystery to be recognised by it as a fact, but never to be unveiled in the manner of its coming to pass. In this sense the mode of existence of all things is for us unfathomable; but what it is not given to us to know, forms not the core of things, but rather a husk, not the content of their being, but the nature of the ordering through which they become what they are. *What* things are is thus not incomprehensible to us, for that which is in them they exhibit in their outer manifestation; *how* they can exist and can manifest themselves anyhow, is the universal enigma.

# CHAPTER III.

## OF THE TRAIN OF IDEAS.

Comparison of Mental Life with Bodily Life and with Physical Nature—How Ideas persist, and how they are forgotten—Of their Interaction, and of the Narrowness of Consciousness—Differences in the Strength of Sensations—Degrees of Clearness in Memory-Images—Contrast of Ideas—The Inner Sense—Guidance of the Train of Ideas by the Laws of Association and Reproduction.

§ 1. AS in the bodily life there comes first a time of unobserved activity filled with astonishing new formations and modifications, while after birth hardly anything more remains than to carry on quietly and uniformly the growth of already fixed forms, so also in our soul we find abiding habits of working presented to us as facts, so soon as we begin with deliberate attention to make its development the subject of our reflection. What goes on before us seems to be nothing but a continual exercise of powers long since formed, an ever enlarging accretion of knowledge cast in moulds made ready for it by previous mental labour that has remained unknown; lastly, an expansion of our feelings and volitions over the widening sphere of points of contact offered to them by our experience as it advances day by day. In all these processes lie doubtless other very decisive reasons determining the peculiar form and the value of the higher human development; but where we are dealing, not with the origin of humanity, but with the nature and development of the general psychic capacities, from whose special application that proceeds, internal observation seems to promise us little information. Most of what we would fain know lies anterior to experience, like the first and chief great formative periods of our terrestrial globe, and only conjecturally can we infer from the comparatively uniform and limited processes still

going on within us those by which in our soul's earliest stage a solid foundation was prepared for its subsequent development.

Nay, far more than in geology are we oppressed by these difficulties; for obscurity hangs over even the laws which regulate what still takes place within us, and by whose help alone we can attempt to divine the prior state of things. Countless impressions have already poured in upon us, and their abiding force is at every moment exerting on the course of their successors an operative influence that we can hardly discriminate from the exclusive results of the unalterable universal laws of mental life. And here it is not possible as in physical science by experiment artificially to separate the various forces, in order to determine the amount contributed by each to the compound result. For, unable as we are to do away with our past life, we can never free ourselves from the dark unanalyzable pressure by which it operates to determine the whole subsequent history of consciousness; and no opportunity ever occurs for us to observe those simple and elementary processes from which our present infinitely complex state must have been evolved. Thus we have scarcely any choice but to keep meanwhile to those main outlines of what our inner experience presents which cannot easily be mistaken. By experimentally making more distinct the general conjectures to be gathered from such a review, and testing the greater or less agreement of their results with observed facts, we may perhaps by a circuitous route attain to a more definite insight into the laws of psychic life.

Now, endlessly varied as is the tenor of that life in different individuals, the concordant result of self-observation has long and generally been the conception of a mechanism by which the course of internal phænomena is directed perhaps universally, certainly to a great extent,—having other forms, indeed, and governed by laws of its own differing from those of external Nature, but exhibiting a like thoroughgoing dependence of each several event on its preceding conditions. Distinctly, however, as this psychic

mechanism shows itself in the phænomena of memory and recollection, and in the dependence of our feelings and volitions on certain impressions by which they are regularly evoked, securely and with accurate instinct as we ourselves reckon in daily life on its unfailing efficiency, we are yet unable to state precisely—as we can laws of Nature—the rules which it obeys. For the difficulties of internal observation, already alluded to, are increased by the fact that we have here the aid of no general intrinsically certain doctrine in regard to the relations of reciprocal action necessarily obtaining between the states of each individual being. Most of the principles which we observe prevailing in mental life may be regarded merely as actual arrangements, and, while we often perfectly discern their importance for higher development, we yet cannot prove that these precise forms of action are the necessary consequences of the nature of every immaterial being open to an indefinite multitude of impressions from without. It is easy to see how prejudicial such a state of matters is to the interests of explanation. When we are referred to a collection of facts of experience, we must not go beyond what experience itself teaches; could we trace back the facts to their necessary origin in the nature of the soul, we might easily give them a more accurate and profound expression, that would give us access to a whole multitude of inferences from which we are now shut off. These difficulties we are very apt to underestimate; spoiled by the successes of physical science, we too often regard maxims, unquestionably valid for the explanation of physical processes, as universal and necessary truths, and forget that the unprejudiced observation of mental life finds altogether peculiar forms of existence and action, hardly to be compared with physical phænomena. Concerning the motion of matter we possess a body of scientifically precise laws; concerning psychic manifestations a number of empiric observations; but we still lack a third and higher requisite,—a universal science exhibiting the laws that govern the states of beings in general, from which the science of physical Nature and that of mental life

should flow as two different applications of a common underlying principle.

§ 2. One of the simplest facts in which we become aware of the psychic mechanism is the familiar experience that, of the numberless ideas which we owe to impressions from without, but a few are at any moment present to us; the greater number have disappeared from consciousness, without on that account being altogether lost to the soul; for without repetition of the impression from without these forgotten ideas are recalled to memory. One interpretation of these facts that has been made, is that the perpetual duration of every thought once called forth is only what was naturally to be expected, of forgetfulness alone was an explanation sought, and this it seemed easy to find in the mutual pressure of a multitude of ideas meeting and striving to jostle one another out of consciousness. But it were vain to attempt to represent this imperishableness of ideas as the self-evident result of a universal Law of Persistence, according to which every state of a being, if left to itself, must continue until a new action comes in to alter or annul it. The analogy with physical science, which in the theory of the motions of bodies makes use of that law as one of its most serviceable instruments, is not sufficient to guarantee its applicability to the processes of mental life, on account of a palpable distinction between the two cases. For a body has no experience in connection with its motions, which are to it merely a change of place, and of which no one motion is of more consequence to it than another; its own nature therefore contains neither ground nor capability to resist this change. Ideation, on the other hand, as an internal event necessary for the being in which it takes place, is a disturbance of its original condition; now, it would seem that, if we are entitled to expect an idea, once presented, to go on for ever, we are equally entitled to apply the same law to the nature of the soul; we might suppose in it an effort to retain its previous condition, which would lead it to seek the abrogation of every several impression imposed on it, after the constraint

of external power had ceased. Without entering into the indecisive discussion to which the antagonism of these views would lead, we will content ourselves with the more simple acknowledgment that the facts of consciousness necessitate the assumption of this persistence of impressions, and defer for the present any attempt to comprehend this matter of fact as an inevitable result of the soul's nature. We need not regard it as a strange and peculiar anomaly, seeing it is on this retention of impressions that depends the fulfilment of the vocation of mental life,—to unite what in space and time falls into unconnected fragments, and to secure to the past, through its surviving image, a co-operative influence on the present, long after it has itself ceased to form part of the actual course of things.

No more than we deny the *persistence* of ideas can we hesitate to recognise in their mutual influence the ground of their *expulsion from consciousness*. But, while the evidence of experience is uniformly in favour of this influence, we can hardly give any reason for its presence. It is not sufficient to point to the soul's essential unity, as not permitting of its different states running on alongside of one another, unconnected and ineffective. For, in the first place, that unity would lead us to expect nothing more than an effort to fuse all the dissimilarities of the mental states into one uniform total state. But we know that such a tendency is neither present in the conscious train of ideas,—for all the variety of impressions is preserved in it,—nor can occur in those unconscious states into which vanishing ideas are converted, for they come back from forgetfulness with the contrasts which distinguished them in consciousness in undimmed distinctness. We should thus have found ourselves wholly deceived had we attempted to base such an expectation on the unity of the soul, and the perception of this calls our attention to the fact, that while the unity of a being may, as a rule, lead to reciprocal action between its various states, the particular form or sense in which such action takes place depends on the special nature of each individual. For the

fact that ideas do not blend into one modified resultant idea, but only affect each other's degree of illumination by consciousness, we must seek an explanation in what makes the soul such, or in what distinguishes consciousness from other manifestations of its energy.

In everyday life we console ourselves with such imperfect ideas in regard to the difficulties presented by the nature of consciousness, that there had been hardly any reason for recurring to these vulgar conceptions, did not the obtrusiveness of their shortcomings tend to set distinctly before us the problems which they leave unsolved We are wont to regard consciousness as *a space of limited extent*, within which the impressions struggle for their places; we concern ourselves little as to the reason why this space is limited, and equally little as to the cause of the impressions thronging into it; finally, as we are swayed by the comparison with material forms from whose impenetrability it arises that each one withdraws from another the place which it fills itself, it appears to us self-evident that within the limited extent of consciousness only a finite number of thoughts can coexist. We thus smuggle in by the way, under shelter of a wholly unauthorized image, the idea of a mutual incompatibility of ideas, and of a pressure which they of necessity exert on one another. Or we speak of consciousness as *a light* whose brightness may indeed fluctuate, but only within finite limits, and then take it as a matter of course that its store of luminous energy is distributed over the actual number of impressions, weakened by dispersion among many, intensified by concentration upon a few. In this comparison we are in fact deserted by the image that we fain would follow. For every light, diffusing its radiance around, illuminates many things no less strongly than a few, and we do not find its rays turning round in a curve from the point at which they had found nothing more to illuminate, in order to fall with greater intensity on the smaller number of actual objects. The larger number are more feebly illuminated only when, by one covering another, the light is withdrawn from some;

and here is the very point requiring explanation — how between ideas relations can come to hold, owing to which the one makes it impossible for the other to become known. We should gain but little if, quitting these spatial comparisons, we designated consciousness generally as an exhaustible force, having but a limited stock of energy at its command. For we should still have no reason to give why only certain ideas are seized vividly by it, others allowed to drop out of existence; we would not know why, instead of a twilight diffused with constantly diminishing clearness over a constantly increasing number of impressions, there should be this alternation of full light and utter darkness, in which ideas emerge and again disappear.

To this query too, however, ordinary opinion has an answer, which, as it goes somewhat deeper, constrains us also to go deeper. All the stimuli reaching the soul from without are supposed to create in it first of all impressions, which as such are not yet either sensations or ideas, but as an accumulated store of internal states await a consciousness that will apprehend them, and by its apprehension first raise them to the rank of sensations. Of the special nature of these impressions we can of course form no conception, because by their nature they remain permanently out of consciousness, and cease to be themselves as soon as they are apprehended by it; but in their infinite multitude they appear to us as a diminished and approximate repetition of the outer world, transported indeed into the interior of the soul, yet to consciousness no less foreign than distant external objects with which we are connected by no bond of reciprocal action. Of these impressions the Law of Persistence, it is supposed, holds good; when they have once come into being, they do not again pass away, but they stand in no constant relation to the mind's cognitive energy, which, like an unsteady light shining now on one, now on another, at one moment takes them up, at another lets them relapse into the unconscious existence of latent impressions.

There is a certain interest in tracking out the tacit assump-

tions on which this conception rests. · Where we find some element, under the influence of an external stimulus, undergo a change, the particular form of which is derived solely from its own nature, not from that of the stimulus, we can in thought regard the whole process in the element as a sequence of two events,—an impression and a vital reaction to it. Now in ordinary life the objects of our observation are usually composite forms of being, and here some time must elapse before the disturbance of the part first affected by the impression is propagated over the whole, and, by stimulating the other parts, calls forth a reaction to the original disturbance. We thus become accustomed to the idea of a chasm between a passive state and the activity corresponding to it. Now, when we turn to consider the simple nature of the soul, this conception no longer appears equally imperative. No doubt, any external stimulus will determine action in it only by first making it feel, for otherwise — were it not thus affected—the stimulus would not exist for it; no doubt also its internal changes, its passivity as well as its reaction, will be developed only after an interval of time; but it is at least not necessary that these two parts of the whole process, which to our intelligence are quite distinguishable, should succeed one another in different sections of time, or that in addition to the impression of the external stimulus another complementary condition should come into play in order to direct the attention of consciousness to it, while it is itself unconscious. On the contrary, we may regard both as at every indivisible moment simultaneous, as so blended together that the different names which we give them denote no longer two processes, but different phases of one process, in itself indivisible. For even what we call a passive state is no ready-made change wrought in its subject, by which the subject is merely affected, without feeling affected in definite form and manner. The same impression produces different states in different subjects; thus, then, suffering in some one particular way is itself a reaction in which the essential nature of each subject vitally manifests itself.

If we now consider the sensation directly produced in us by an external stimulus, we must acknowledge that the whole aspect of this simple process is far more in favour of the conception of union than of that of division. We do not know why the wave of light that strikes our eye should have had first by its action on the soul to produce an indescribable unconscious impression, which was succeeded as a reaction by the sensation to which it appeared as blue or red. The sight of a particular colour, the hearing of a particular tone, may unquestionably be conceived as the single, undivided state into which the soul passes, and we call it impression when we think of its being caused by an external stimulus, but vital reaction when we call to mind that the same stimulus would have excited other states in other natures—that consequently the form of the state here present depends on the nature of the soul. We have, apparently, to conceive these processes in the same manner in which we calculate the distribution of motion among inelastic material points. We do not suppose that a body when struck, at first merely receives the velocity and direction which the impact strives to impart to it, and that only afterwards reacting on that impression by means of the motion which it has acquired, does it strike the middle resultant line which is to be that of its actual course. On the contrary, from the first moment of impact we find nothing exhibited but the single and undivided motion in which are indistinguishably blended together the imparted impression and the efficacy of the original condition. Guided by such considerations, we might decline to suppose conscious sensation preceded by unconscious psychic stimulations; it might seem not merely idle but even preposterous to seek in the mind, the seat of consciousness and of light, for a dark background of night, out of which the lucidity of thought is developed as a subsequent phænomenon. And in fact a psychological theory has been formed, on which conscious sensations are viewed as primitive processes of psychic life, all other phænomena being derived from their reciprocal action.

This position of matters is in some measure altered by the regard necessarily had to forgotten ideas. We certainly cannot find fault if in everyday speech that which was once an idea still continues to be so called long after it has lost the essential attribute on account of which it received that name. At the same time, the philosophical inquirer must bear in mind the inaccuracy of such a mode of statement; he must recognise that the names of forgotten or unconscious ideas denote something that is no longer in any sense an idea, and that these self-contradictory appellations are merely to be tolerated as reminders of the origin of the states to which they refer, not to be accepted as affirmations in regard to their present nature. However much it may remain customary to trace all unconscious processes within us exclusively to the mutual interference of ideas, that conception must imply the acknowledgment that besides consciousness there are other mental states into which consciousness can be converted. But if we once have to allow this, it will be hard to fix the limits of the conclusions to be drawn from it. We shall have recognised once for all a constant reciprocal action between the clear life of consciousness and the dark background of the unconscious, and thereby given an advantage to the already-mentioned theory according to which thought in general is a fluctuating activity, now operating upon and now turning away from the accumulated wealth of unconscious impressions.

§ 3. The antagonism of these two doctrines is undeniably one of the chief reasons why the psychological theories even of the present day diverge so widely. The fundamental problem for both must be to account for the fixed sequence and order exhibited in the train of ideas. This problem will so present itself to them respectively that the one will seek for the laws of the mechanism that makes one conscious state expel another; while the other will have to inquire into the reasons why certain unconscious impressions draw the attention of presentative activity to themselves and divert it from others. The two will often coincide in their results, both being perforce

guided by the consideration of one and the same body of facts; nevertheless the discrepancy in their mode of procedure remains sufficiently distinct to make it worth our while to dwell on it for a little.

The first theory of course finds in the *greater or less strength of ideas* the standard of the amount of expulsive influence exerted by them on one another. Yet ideas are not originally endowed with repellent force; their action and reaction on one another become necessary only when the soul's unity operates to combine them, but their own mutual antagonism resists combination. Hence in general the amount of contrast between two ideas will determine the force of their action *on* one another,—their strength, on the other hand, will determine the amount of the influence *from* one another which they will severally undergo. Now that this conflict, though occasioned by the contrasts between ideas, does not end with their adjustment, and that only the force of the contending ideas is diminished, while their opposite characters remain unaltered—this is a fact which the theory in question will do best to treat as equally unexpected and inexplicable, which we are compelled by observation to recognise. Only after this point has been conceded does it become possible to trace back to it the more complex phænomena; we are wholly unable to discern any inherent necessity in the relation itself, and gain nothing by the attempt to bridge over the chasm with delusive words.

Nay, even those notions of force and of resistance to which we are accustomed in the calculation of physical events, offer manifold difficulties when we seek to apply them to the explanation of the train of ideas. The sensations, *i.e.* those ideas awakened within us by the present action of an external stimulus, are doubtless distinguished by various gradations of intensity, for none of them is a pure and indifferent representation of its content; on the contrary, each is felt by us as a greater or less disturbance, a more or less keen affection of our own being. Not only in itself is dazzling light stronger than soft radiance, but, moreover, our

sight encounters more in the one than in the other; not only in itself is the louder sound something greater for our apprehension, but also the apprehension of it is in us a stronger impression than that of the softer tone. Nor is it only the sensations of the same sense that may be thus compared; the excitations of one may also be set alongside those of another as disturbances which are greater or less for our souls. If, therefore, we conceive a soul, whose consciousness is not yet controlled by any remembrance of previous experiences, exposed for the first time to a variety of external stimulations, we shall find it probable that the sensation of stronger character will overpower that of weaker. In the matured soul that has been trained by experience the forms of phænomena are no longer so simple; we know that a faint noise can distract our attention from loud din, and that in general the power exerted by presentations over the direction of our course of thought is no longer in proportion to the intensity of their sensible content. During the advance of life, on the contrary, the impressions have acquired a preponderant interest according to their value as premonitory, attendant, or following signs of other events. Thus experience—in each individual case different—determines differently also, for the future, the values of the several presentations, and does not always decide them in the same way even for the same individual. The constant nature of the mind and the no less constant principles of the bodily organization alone provide against this variability extending beyond certain bounds, while the preponderant force with which certain impressions of sense and intelligence lay hold of all men alike, is certain in the end to reduce the value of what is presented to some common measure of comparison and measurement.

It thus appears as if we must make a threefold distinction, first of the greater or less amount of the presented content, then of the intensity of the stimulation which it produces in us, lastly, of the influence which its impression exerts on our train of ideas; nowhere but in the sensation of a soul still destitute of experience would these various

characteristics quite coincide. But in memory the second disappears. While it faithfully repeats the content of previous sensations as regards their character and intensity, it does not repeat the disturbance which we underwent from them, —or, where it seems to do this, it really adds to the reproduced perception of the previous content a mere image of the former disturbance as a second presentation. The rolling of thunder, in our remembrance, however distinctly its peculiar character and its intensity may be recalled, is yet accompanied by no more powerful excitement than the equally distinct idea of the softest tone; we may indeed at the same time remember the stronger disturbance occasioned in us by the louder sound, but even this idea of the more lively excitement is now no stronger agitation within us than that—equally distinct—of a feebler disturbance. We distinguish in memory the diverse weights of two objects, but the accurate representation of the greater exertion caused us by the one now no more sensibly affects us than the not less accurate remembrance of the lighter burden. The idea of pain is not pain, of pleasure not pleasure; without pain and without pleasure consciousness, as from a secure elevation, reproduces the content of past impressions with all the variety of its internal relations, even with images of the feelings that attached themselves to it, but it never confuses the fulfilment of its task by bringing back the impression itself instead of the images. That which it presents, it presents expressly as absent, and, without being affected by the greater more than by the less, repeats both with like ease, like two shadows of which neither is heavier than the other, however diverse be the weight of the bodies to which they correspond.

In reminiscence, accordingly, the train of thought recalls to consciousness its former contents alike great and small, strong and feeble, but the presentative activity thus employed remains unvaryingly the same. And yet, as their respective contents do not blend together, the reciprocal action of presentations would be dependent solely on distinctions in the presentative activity, for only in the immediate direct sensation will the

magnitude of the object presented, coinciding with the intensity of the excitement, decide the victory in favour of the one or the other. If, then, we speak of strength of presentations, on the supposition that the fate of presentations is thereby decided in their conflict with one another, this can be only in the third sense—that of the influence exerted by each presentation on the direction of the train of thought. This influence, however, is not a property already clear, by which we may explain what further happens, but is itself the capacity of whose grounds we are in search. To account for the operations of ideas by strength in this sense, would have no more meaning than to say that in a contest he usually wins who for unknown reasons gets the upper hand. But, before seeking these unknown reasons elsewhere, we must refer to certain other relationships that apparently give some support to the notion of a variable or various strength in ideas.

We are quite familiar with the opinion, that the content of every perception, without itself undergoing any alteration, can be conceived in numberless degrees of *clearness* or *strength*, and that, as ideas run down the scale of these degrees, they become gradually and steadily more obscure, till they finally disappear from consciousness. But this is the description of an event that no one can have observed, seeing that observation of the process would make its occurrence impossible. Only afterwards, when we notice that an idea has been for a time absent from our consciousness, do we answer our own question as to the mode of its disappearance by this conjecture of a gradual extinction, of whose reality actual observation, so far as it can reach the matter, affords no evidence whatever. If we recall our mental state when a strongly aroused idea was for a considerable time vividly present and seemed gradually to disappear, we always find that it did not steadily become obscure, but with many and abrupt pauses was sometimes in consciousness, sometimes not. Any new impression whose content was somehow connected with the idea in question, re-

called it for a moment to memory, any one which was alien and made conspicuous by its novelty, overpowered it momentarily; it thus resembled a floating body, that, as shifting waves now suddenly engulf it, now as suddenly cast it up, is at one moment quite visible, at another wholly invisible. What has to us the semblance of gradual obscuration is partly the lengthening pauses between the reappearances of the idea, partly another characteristic of which we shall speak later.

Now, were we to divide the motley multitude of ideas into the simple impressions of sensation and the compound images formed from these by manifold combinations, we could not say in what the difference of strength in the former must consist, did we not unwittingly alter the content presented. We cannot have a more or less distinct idea of the same tone, with the same pitch and loudness, and the same harmonic character; we either have an idea of it or we have none, or else we violate our own hypothesis, and put the idea of a stronger or feebler, *i.e.* of another tone, in the place of a stronger or feebler idea of the same tone In like manner we cannot have a more or less distinct idea of the same shade of the same colour in the same degree of light, but, when it is indicated by a name or description, we may very well, in trying to recall it, hesitate uncertain between several allied images of colour that present themselves, not knowing which of them is the one we seek. Then we falsely interpret our mental state and think that we really have the idea, only not very clearly, whereas in fact we have it not, and are only seeking it among a crowd, with whose number our uncertainty, and so the apparent indistinctness of the idea, increases.

Still less do our compound perceptions perish by a gradual obscuration that makes their whole image grow dim under a gradually failing light; but they become indistinct by a dissolution as if of decay. Of an object once seen certain less noticed parts fall away in our remembrance, and the particular mode in which they were combined with others is wholly

forgotten; in the effort to paint the object in memory we stray helplessly among the possible ways of filling up gaps or connecting the details still clearly present to us. Thus here too arises an apparent indistinctness in the idea, which increases in direct proportion to the extent of the space within which our imagination is left free to make its additions. On the other hand, every idea is perfectly distinct whose parts are conceived completely and at the same time with unhesitating precision as to their mutual relations, and this distinctness is in itself capable neither of increase nor of diminution. Nevertheless it often seems to us as if even a presented content that has been long complete could still increase in its strength of presentation; but in such cases it is increased by a fresh element. As it becomes indistinct through hiatuses that diminish its amount, so it seems to gain in distinctness when over and above its own sum the manifold links by which on all sides it is bound to other ideas enter into consciousness. It is impossible for a circle or a triangle to be more or less presented; one either has or has not a correct image of them; nevertheless the conception of both seems to become more distinct when our geometrical training enables us to recall simultaneously the many important relations belonging to the two figures. This is clearness such as admits of gradations of difference, *i.e.* a power in the idea, springing not from its own strength, but from its connections. Hence a previously vivid idea seems to us to become more indistinct in consciousness when from any cause it gradually ceases to bring to remembrance with itself all the others which were associated with it at the first moment, when it was most vivid, or whose presence it was that caused it to be vivid. Thus, as we said above, an idea awakened within us dies away, as, sometimes arising, sometimes disappearing, it brings back on each resuscitation a smaller fragment of the thoughts by which it was previously accompanied. And hence it appears to us, when we afterwards look back on a past train of ideas, that a single impression has passed through our

consciousness, with less distinctness or elevation, when in fact it entered with the unvarying distinctness common to all alike, but called up too few accessory ideas to be able to maintain itself for any length of time and exert any influence on the direction of our thoughts.

Thus we, after all, return to the affirmation that the power with which the various ideas contend against one another, does not depend on a particular degree of strength, at which each originally stood, or which, as it now increases, now diminishes, it reaches at any moment for any reason. What we have been accustomed to think of as the strength of ideas consists not in a gradationally determinable intensity of knowledge about them, but in an extensively measurable completeness of their necessary content, and in the fluctuating store of countless elements that associate themselves with the essential content of each one. Perhaps, however, more accurate investigation may still discover some fact that we have hitherto overlooked; but before setting about such a search, we must briefly notice the other element usually referred to in discussions on the course of ideas—the mutual contrast of the several impressions.

So long as we thus take note of present external impressions, we see our consciousness open to the greatest possible variety of sensations. Our eye distinguishes at a glance numberless points of colour, and when these different impressions seem to disturb one another, we have reason to account for this result, not by a reciprocal action of the already formed ideas of colour, but by disturbances caused to one another by the bodily stimulations in the elements of the sense-organ, before their final action gives rise to sensation in the soul. Least of all may we suppose that at some earlier stage of life points of colours yielded to the eye and tones to the ear only an undiscriminated mixture, from which growing attention selected the several elements. For attention would have neither a motive nor a rule for its selection, did not the impression, with some distinctness, present different constituents, between which it can deepen and

sharpen the boundary lines, though it cannot draw them where they are not first indicated. Unquestionably, therefore, consciousness neither is too limited for a multitude of sensations, nor has it any tendency to blend heterogeneous ideas that have once been formed into anything intermediate. Now this repeatedly-mentioned characteristic does indeed make us distrustful of the conjecture that the contrast in content of ideas determines the force with which they seek to expel one another from consciousness; but yet it does not make this influence so impossible as to free us from the necessity of consulting experience. Now our self-observation is not in this point very distinct; nevertheless, it seems by no means to favour the above conjecture. It is always very difficult to grasp together two unconnected ideas; so far, however, as it can be done, we do not find it more difficult to have simultaneous ideas of white and black than of red and orange, or that the effort to think sweet and sour at once is greater than the effort to combine two similar sweet tastes. On the contrary, it appears to us as if the extremest contrasts possible for the content of presentations were thought together with greater ease than differences separated from each other by a definitely measurable interval. The ideas of light and darkness, of great and small, of positive and negative, and numberless others we find so connected in consciousness that the one is not thought without the other, and if it is impossible for us to apprehend these opposites simultaneously as marks of one and the same, there is, on the other hand, no difficulty in distributing them among different objects, and this is quite sufficient here, where the question concerns not the compatibility of properties in things, but the possibility of combining the ideas of them in our consciousness. If ideas actually displaced one another in proportion to the contrasts in their content, so that the dissimilar deprived each other of distinctness more than the similar, the strange result would follow, that our discriminative observation must apprehend small differences

more distinctly than great ones. But, on the contrary, all perfecting of our thoughts depends entirely on consciousness remaining quite unaffected by the content of ideas, and on its being neither resisted nor helped in its operations by the relations between the given manifold, so that it may impartially take in these relations. We may indeed allow that by the various connections between the content of ideas, feelings are awakened within us which determine the measure of the attention that we bestow on one of them rather than on another; but apart from these effects, which serve another purpose of mental life, we think we may hazard the assertion that the mutual obscuration or displacement of ideas is wholly unaffected by the degree of contrast between them in content. This conclusion may be questioned as being contrary to the universally necessary proposition, that contradictory states in one and the same being must annihilate one another. But, however it may stand with the validity of this proposition, the experiences already referred to teach that the energies by which we conceive opposite contents, are either not contradictory opposites, or at least are not so in such a sense as to make their contrast, though perhaps actual, the ground of a counter-action. Here, too, we learn how absolutely different are mental processes and physical events, and how misleading is the precipitate application of principles that in physical science are indisputably valid, because there the points of their application are exactly known, whereas their validity in the sphere of mental life—while perhaps here too universal—is in the meantime useless to us, seeing that we have before us not the original processes to which alone they can refer, but results removed from these by many intermediate links.

§ 4. Not one of our questions is yet answered. We have found no cogent reason for accepting it as demonstrated, that consciousness cannot apprehend more than a limited number of ideas. And, when we assumed this as a fact, we saw neither in the notion of a difference of strength in ideas nor in that of opposition between them as to con-

tent a means of accounting for the degree of power which they severally display, and with which they contribute to determine the course of the train of thought. Once more we must try, in the now diminished list of possible conjectures, to find one more adequate.

Now, that narrowness of consciousness which formed our first subject of inquiry, is not really a fact as regards the sensations produced by impressions from without. All our senses can be simultaneously in action, and receive a boundless variety of single stimulations, each of which, so long as intermediate bodily effects do not hinder its transmission to the soul, is apprehended by an act of consciousness. It may indeed be maintained that of so many impressions the greater number are taken up but obscurely and indistinctly; yet the possibility of subsequently recalling their content, or even their indistinctness, proves that they really have been in consciousness, though from lack either of a preponderant sense-impression or of a specially significant character, they could not expel the others and assert themselves in the train of thought with determinative power. It seems quite different when, without being under the constraint of present sense-stimulations, we seek to repeat in memory an absent or past manifold. Here the parts of what was seen and heard simultaneously, in the actual sensation, reappear almost entirely in succession; and the thoughts which less immediately reproduce sense-impressions, form within us a perpetually flowing narrow and shallow current, that, while it turns abruptly from one idea to another, and with rapid changes runs over many things, yet seems almost wholly to have lost the power of embracing at once a countless plurality, like the glance of the eye. It would thus appear that the constraint laid upon us by the stimuli pressing in from the outer world only enlarged consciousness, while, left to itself in remembrance, it can hardly grasp several ideas together, but only various ideas successively. Nevertheless, to maintain the latter in thoroughgoing strictness would be to go too far. For although it would be very difficult to decide by direct

observation whether several ideas can be at once present in consciousness, and whether we are not rather deceived by the rapidity of their succession, we are yet forced by the fact that we can make comparisons, to suppose simultaneity possible. For in comparing we not only pass from the idea of one of the things compared to that of the other, but, to make the comparison complete, we must further apprehend both, and the mode of the transition between them, in one indivisible act of consciousness. In seeking to convey a comparison, we are compelled by the nature of language to make the names of its two terms, and the indication of their mutual relation, follow each other in time, and this almost cheats us into the belief that there is the same sequence in the thought which we wish to express; but, at the same time, we reckon upon our words causing in the consciousness of the person whom we address not three separate ideas, but the one idea of a relation between two others. Although, lastly, in our familiarity with the use of speech, we put even our silent train of thought into the form of a mental colloquy, yet evidently, even here, the sequence in time of the words that express our ideas, is but a rendering of the relations of their content that we previously apprehended as obtaining between them, and this habit of mental speech really retards the passage of thought, by breaking up into a sequence what was originally simultaneous.

Now if these acts of Relating Knowledge guarantee the simultaneity of a plurality of ideas, they seem at the same time to inform us of the conditions under which it takes place. Only for an unconnected throng has consciousness no room; it is not too narrow for a complex total, whose parts we think as divided, arranged, and connected by relations. We fail to apprehend at once two impressions with no bond of mutual relationship; consciousness needs to discern the path by which it has to travel from the one to the other; it compasses the greater number more easily with this discernment than the smaller without it. Its power of apprehension is

therefore capable of progressive improvement. Memory the more easily repeats compound images of sense the more we have already exercised ourselves in perception, not merely in passively giving ourselves up to the impression of them, but in making ourselves familiar with the relations of their parts. The simultaneous notes of a piece of music are as such heard by every one, but they will scarcely be remembered by him to whom they are but an unconnected multitude; the musically trained ear takes them in from the first as a complex whole, to whose internal structure the preceding course of the melody led up. Every image in space impresses itself more firmly on our memory, when we are able to analyze its impression on our senses by means of a description. If we say of one part of a building that it rests upon another, supports a third, is inclined to a fourth at a definite angle, we meanwhile increase the number of ideas to be kept in mind; but in this verbal expression by propositions the motionless co-existence of the parts is transformed into a series of reciprocal actions, apparently taking place between them, and binding them together more distinctly than our unanalyzed perception. The more highly the mind becomes cultivated, the more skilful it becomes in detecting connecting links between remote thoughts, the more capacious does consciousness become even for ideas bound to one another, not by forms of space and time, but by ties of inherent relationship.

§ 5. While in sensation consciousness appeared to us accessible to an indefinite multitude of passive states through the power of the external stimuli that imperiously demand its attention, this memory-knowledge exhibits itself rather as a relating energy exerted by the mind. So long as we dealt with consciousness as a space within which ideas rise and fall by their own force, we were unable to account for its circumscribed extent, and the multitude of simultaneous states could not seem to us impossible; we naturally feel bound to assume, on the other hand, that the soul's unity excludes a simultaneous throng of unconnected acts, and that it includes

only what it can grasp in the unity of a single act. Thus the view, according to which presentation brings the impressions into prominence as a moving *Inner Sense*, would seem more consonant with the limitation of consciousness, for which we are seeking to account. As yet, however, it offers no demonstration of the laws according to which this fluctuating light of combining attention chooses its course. It cannot go groping its way indefinitely out into the void, but, when it seems actively to grasp its objects, its activity consists only in the selection displayed in taking some and leaving others of the many impressions that throng in upon it.

We here allude to familiar facts. That a newly-produced impression revives the forgotten idea of a previous and similar one, or recalls it to consciousness, is the simplest of the universal laws that regulate the course of memory. But yet this resuscitation is of importance to our inner life only in so far as it not only recalls what had been forgotten, but at the same time brings about a consciousness of its identity with the new impression. Hence new and old must not wholly coincide, but must be recognised as two different recurrences of the same idea, and this is possible only if the two are distinguishable by accessory characteristics attached to them. The advantage of the immediate reproduction depends, therefore, on the possibility that the resuscitated idea will also bring back into consciousness the others with which it was previously associated, even should these consist in nothing more than the obscure feeling of the general state of mind in which it was previously apprehended, and which differed from the mood accompanying the new impression. We usually denote by the name of *Association* that cohesion of ideas which we must regard as continued during their unconscious condition, in order to understand their reappearing together at the moment of resuscitation. Any attempt would be fruitless to gain by intuition an idea of the character and fashion of this cohesion, observable only in its results, it is itself beyond the range of observation, and there is nothing analogous to it in the sphere of physical phænomena. Re-

fraining, therefore, from inquiring what are the ties by which these associations of ideas are made lasting, we must confine our aim to that of laying down the conditions under which they occur in a manner otherwise incomprehensible.

Now, to all associations of ideas may be applied the general statement, that the soul does not chemically transform the sum of its contemporaneous states into a uniform compound state, but mechanically combines them as parts into a coherent whole, and that in like manner it forms the series of its changes, evolving in time into a melody in which those phrases cohere together most firmly which are in immediate juxtaposition. Accordingly all *Reproduction* rests on the impossibility of the resuscitated impression reappearing alone, without trying to bring with it the whole of which it previously formed a part, and of that whole specially the other single part to which it was most closely attached. Under this common formula may be placed the various cases usually treated as distinct. It comprehends not only as primary the associations of ideas which the order of our inquiries has first set before us, but also the numerous similar combinations of feelings, of volitions, of ideas and feelings, or feelings and volitions, whose co-determining influence must not be overlooked in a complete representation even of the train of ideas taken by itself. We find further embraced by it the association by which the images of particular parts of extended forms recall one another and the whole. For the parts of any form in space may be surveyed simultaneously, or may be taken in in a series of ocular movements by which the eye runs over them. Further, any other more internal connection by which we had on any previous occasion bound up some manifold into the whole of a thought, is in like manner intelligible to us only in a momentary act of ideation, or in an unbroken series of such acts following one another in time. Lastly, one impression often recalls to us another which is similar, but with which it was never previously presented simultaneously in perception; but this very frequent process requires no special explanation. It rests partly on the

immediate resuscitation of like by like; the prior idea of what is common to the two impressions seeks to return, and by indirect reproduction brings with itself the particular traits in virtue of which the old only resembles the new, is not identical with it. Simple ideas whose similarity consists in an equally simple indefinable affinity of content, call forth one another with little force; a colour reminds us but little of other colours; a note hardly of the variety of the scale; each reproduces much more vividly the whole as a part of which it before appeared—the colour, the shape of the flower that showed it —the notes, the air that began with them. A word, as a series of tones, does indeed remind us of another like it in structure, so that we confuse the two; but it reminds us still more forcibly of the image of the thing along with which it formed a compound whole. In complex ideas, the mode in which the manifold content is held together almost always preponderates in our remembrance over the impression directly produced by the peculiar character of the parts; the child's eye recognises the same shape of letter, without hesitating at the difference of colouring. Those images, therefore, recall each other most vividly whose constituent parts—perhaps exceedingly diverse —are grouped in the same order or arranged according to the same plan. The direction taken by the advancing mental growth by degrees gives one of these modes of reproduction an advantage over the others; the more frequently our attention has been directed to identical and similar forms of connection of the manifold, the more readily does it overlook the differences appearing even in these, and seize the more general resemblances. The attention becomes accustomed to apprehend even internal and imperceptible connections, and to it in memory things related logically and by general principles have a stronger mutual affinity than things naturally strange to one another, which only the accident of their being simultaneously perceived brought together in consciousness. Thus the strength of memory for the order in which the incidents of life follow one another not unfrequently declines, while its fidelity for the general relations founded in the nature of

things increases. But it must suffice to have touched on these relations, whose abundant variety it would be impossible here to exhaust.

Thus through the mechanism of association a number of possible paths are opened to the train of thought into which it can strike, and between which it must choose. Now, as each of the ideas present is trying to bring back all the others with which throughout life it has successively been bound up, the decision as to what, out of all this abundance, is at any moment first to return to consciousness, will depend on a convergence of different conditions. The greater the number of resembling points common to a forgotten idea with the one now in the ascendant, the more easily will it be revived by the latter, for the more numerous are the single threads forming the bond that unites them. At the same time, however, their efficacious affinity will not consist solely in their resemblance as to content; even without such agreement, an idea may, in many indirect ways, be more or less closely connected with the purport of a train of thought now going on, with which previous reflection has associated it as an essential related point, as a constituent, as an example, or as a concomitant. Nay, an indefinite mood of feeling will make two groups of ideas to which its presence lent a common colouring, appear, in spite of difference of content, more akin to each other than to others more of the same stamp. In the place of an abiding contrast between ideas, decisive of the force with which they repel or revive one another, we have therefore to put a degree of affinity determined anew each moment, and altering, as does the contrast of two colours with a change in their background. No less fluctuating is the other condition determining the direction of the train of thought, the degree of interest pertaining to each idea, which constitutes the strength with which it seeks to make itself prominent in consciousness. No subsequent moment brings back the same total sum of ideas, feelings, and efforts, and the same state of body, in connection with which the impression formerly reached its maximum of interest. It accordingly

contributes to determine the further course of thought, not at its old rate, but at the newly-fixed value to which it was able to rise, after it had entered, with that which it had before, into this new conflict with new relations.

Under these conditions a train of ideas developes into the fluctuating and changeful scene with which we are all familiar, and whose apparently wanton play often fills us with amazement, because we never can catch sight of its moving springs. For the complete reason for the character of each future moment lies exclusively in the total condition of our soul during the present one, but of this state self-scrutiny never shows us more than a few fragments; we do indeed become aware of the order of sequence of our past ideas, but we are never in a position to analyze at once the peculiarities of our bodily state, of our frame of mind, of our volitions, and lastly, of the special mutual relations into which all these elements are woven together. And yet even the least and most trivial item of our train of ideas depends on nothing else than the sum of all these conditions taken together; for it does not take place in an otherwise empty consciousness, but in the whole full living soul, that is always active at the same time in those different directions, and cannot be active again in this special way without—thanks to the unity of its being—having those also recalled in its process of thought.

# CHAPTER IV.

## THE FORMS OF RELATING KNOWLEDGE.

Relations between Individual Ideas as Objects of New Ideas—Change of Knowledge, and Knowledge of Change—Innate Ideas—Apprehension of the World in Space and Time by Means of Sense—Apprehension of the World in Thought by the Understanding — Concept, Judgment, and Syllogism—The Effort of Reason after Unifying Comprehension.

§ 1. WE only take in any discourse if our memory retains the earlier words while we are hearing those which follow. And not only this; the order of the succession in which the several words are uttered must somehow be efficiently retained in our consciousness till the close of the discourse; for without this order in time the speaker could not fully indicate the internal connection of the conceived whole which he desires to communicate to us, and the listener must not forget the order in time till he has taken in the meaning of that whole.

Here we find two different operations. I shall speak first of that one which in somewhat fuller detail is one of the most familiar of phænomena: the capacity of recalling, even after a considerable interval, a series of impressions, a story, an air, or a speech, with its constituent parts in the same order of succession in which they were previously apprehended by us. Evidently this methodical repetition would be impossible, equally impossible also the original intelligent apprehension of the whole, did the images of earlier impressions surviving in memory blend with those of subsequent ones into one mass; some systematic arrangement must from the first have been established among them, must have sorted and combined them on a definite plan. Only on this condition is it possible for the listener to connect a meaning with the plurality of

successively heard words, and for this plurality not to return in memory in a formless rush, but to unfold itself before consciousness in successive moments in the order of its original apprehension.

Psychologists have attempted to explain more fully the nature of this arrangement, and have taught that, when a series of sense-stimuli act on us in successive moments, the first meets with an opposing reaction on the part of the ideas which it is sure to find already in consciousness; thus the intensity of the impression created by it must inevitably have undergone diminution by the time when the second stimulus comes to be apprehended. The impression of this second now combines not with the original impression of the first in the series, but only with its faint residuum, for that residuum alone it finds still existing in consciousness. But this combination is subject to the same opposing influence, and both units will have undergone a fresh diminution by the time the third stimulus presents itself for apprehension. This third, therefore, unites neither with the first nor with the second singly, least of all with both equally closely; it can attach itself only to what it finds still in consciousness, namely, to the combination of a second residuum of the first with a first residuum of the second impression. Continuing this speculation, we should therefore find that each later impression associates itself with a group which is the same to no other, and in which each preceding member of the series is represented by a residuum so much the fainter as the series is longer, and it lies nearer the commencement. The same gradations reappear in the recollected series. The initial member, when the idea has by some means been renewed in consciousness, does not at once and with equal force call up all the other members; only when it has itself been reduced to that first residuum with which, in the original apprehension, the second member combined, does it recall the second to consciousness; the third member emerges only when, in spite of the resistance made to this process by the other contents of consciousness, the resuscitation of the second has been effected, and the combination

of the first two has been reduced to the residuum to which alone the third member could attach itself.

Were the object in view merely to account for the order in which memory repeats the links of the apprehended series, simpler considerations would suffice. If once a number of impressions reach the soul in successive moments of time, those will most closely or exclusively cohere together which follow one another immediately, without any intervening link For in whatever may consist the rationale and nature of the connection of ideas to which we apply the name Association, and whatever may further constitute the gradations in the closeness of that connection . at all events an intermediate link has the best right to union with each of the two links between which it stands, by its position dividing them from each other. If, therefore, the soul repeats in order of time the perceptions that formerly reached it in the same, the course of recollection from the first to the third link can only lead through the second, and it is not the following of this course but any deviation from it that would require special explanation. But that memory does repeat in temporal succession impressions first perceived as a series in time is not equally clear. The successiveness of perception was the means and the ground of binding together the several impressions in relationships of graduated closeness ; but, if between the moment of completed perception and that of remembrance the whole series remains forgotten, it retains in simultaneous co-existence the arrangement of all its constituent parts which it thus acquired. Why does not memory now at once recall the whole, as a co-existent complexus, whose parts are connected together only with gradations of closeness ? To this inquiry the advocates of the theory to which we have referred sought to give an answer. In the mutual resistance of ideas and in the effort by which, in face of such resistance, a forgotten idea is recalled to consciousness, they beheld processes that in themselves require time in order to attain their end ; only successively, when at particular points of time particular degrees of clearness have been won back for the ideas, do the efficient

causes begin to act that successively bring back the links of the original chain of perception united with the residual clearness pertaining to them.

But of more importance for us is the second operation, which we undertook above to show present both in the original intelligent apprehension of a spoken discourse and in the recollection of its tenor. It was not enough for understanding that the words were heard one after another; the earlier ones had to be retained along with those subsequent, neither does the remembrance of a series mean the recalling of one link at each moment, so that before and after it there is nothing in consciousness; before this link are sinking the vanishing images of the earlier, after it are already rising the advancing images of the later impressions. But understanding involves more; it is not enough that these systematic and graduated relations *exist* between the several ideas, or that their images in memory pass in consciousness in regular succession. Were there nothing else, the soul would be but a stage, on which a connection of ideas or a change of knowledge presented itself; but an idea of this connection or a knowledge of this change could arise only in an observer capable of more than merely having one state follow another within him, capable, in a second and higher consciousness, of comprehending and judging of the facts presented, and of the relations obtaining between the simultaneous or successive ideas.

Not that we really need this other spectator; for the essence of soul is to be able to observe both other and self. But we think we have reason to dwell on this its peculiar faculty, in express contrast to the mechanism of the reciprocal actions between its immediate presentations. We certainly deceive ourselves, and the error is not without mischievous consequences, when we think we can understand this *knowledge of change* as a self-evident corollary hardly requiring mention, from the notion of the soul as a thinking being and from the unity of its substance. For, in the first place, the empty notion of that

unity may indeed suggest to us the indefinite requirement of some pervading connection between all the states into which this single being could pass; but what form this connection must have we could not guess; the soul would seem already to respond to so vague an obligation by those chains of association and reproduction that actually bring its ideas into mutual relation. It would not, however, be sufficient to attempt to rest the necessity of the comprehensive knowledge of change of knowledge on the assertion that the soul's singular being is at the same time a thinking being. There is certainly probability, though not certainty in the thought, that the soul actually exerts the faculty of ideation, wherein its distinctive character consists, on every occasion fitted to call forth its exercise; thus it is in itself probable that even the relationships into which its several ideas have entered, become to it new stimuli to which it responds by an act of ideation. And as experience teaches us that what we have found reason to expect does actually happen, it becomes of course a plausible conjecture, that all knowledge of the connections of ideas and their successive changes proceeds, as a self-evident consequence, from the fact itself of those connections and that change.

If, in opposition to this plausible conjecture, we deem it necessary to separate and distinguish comprehensive and comparative consciousness as a new manifestation of psychic energy, we desire by this separation to avoid an inference that appears to us erroneous. From analyzing an external sense-stimulus, and without questioning experience, we cannot *à priori* decide whether the sensation will be one of tone or of colour. But, if we compare two similar stimuli, of which we know from experience that, on account of their form, both are heard as tones, and if we may assume that the *process* involved in hearing is identical whether there be one stimulus or two stimuli producing simultaneously an impression, we may suppose it possible to calculate the result of the co-operation of both tones as an effect of their reciprocal action. This attempt would, on the other hand, be in vain,

if every variation in the number and proportion of tones that simultaneously besiege the activity of hearing determined it to an alteration of the laws according to which it reacts on each one severally. What it actually heard, then, in each of these cases could not be guessed from a mere calculation of the impressions severally made by the tones, and from the reciprocal actions arising between these impressions: we should still have to ask how this whole sum of facts affects the auditory energy, and what new and peculiar reactions it occasions in it.

In a former passage (p. 182) I set forth the general considerations that lead us to distinguish from the simple ideas that we took to be the soul's primary reactions on stimulations directly proceeding from the outer world, those mental energies of a higher order which are called forth, as secondary reactions, by the relationships arising between the simpler individual acts of the soul. These relationships seemed to us to act ever anew as stimuli of a higher order on the soul's whole nature, and to incite to expression capabilities within it, whose exercise the simpler stimuli of the first order did not call forth. These new reactions did not appear to us to be *à priori* deducible from the consideration of these occasioning causes; they might take place in forms not to be explained by the nature of the conditions that called them forth but explicable only by the peculiar susceptibility of the soul, that expresses itself in these products which are in part its own. We proceed to apply these considerations to the case in point. Were we seeking merely to understand the knowledge of the *change of knowledge* as a simple apprehension of the relations between ideas, without anything new being added to them in apprehension, so detailed a discussion would be superfluous. But this comprehensive knowledge assumes forms that do not seem to us to be implied in the facts to be comprehended, and these forms are not simple products of certain processes in the train of ideas, so that they must with intelligible necessity appear wherever these processes take place; we regard them as dependent on a new phase

in the soul's nature, that has not yet been dwelt on, and that requires particular attention, even though it be an invariably present attribute of every soul, only one not as yet taken notice of in our description.

§ 2. Much used to be said in former times of *Innate Ideas* pertaining to the human mind prior to any experience, and forming an integral part of its being. Without always accurately examining the nature of the marks by which this pre-temporal origin was to be proved, a pretty wide extent was given to this originally-possessed knowledge; and in order that all which is of most vital interest to civilised mankind—the belief in God, in the Immortality of the Soul, in the Freedom of the Will—might be made more secure, it was included in the treasury of truths yielded to us not by delusive and imperfect experience, but by the eternal and unchanging nature of our mental being. Our national philosophy in its first rise set bounds to the arbitrariness of such views by the doctrine, that the human mind does indeed possess a number of innate Ideas, not, however, such as reveal any fact or special characteristic of the system of the universe, but only such as express the universal principles of judgment according to which our thought must apprehend and elaborate every future possible datum of perception. All the matter of our thoughts comes to us directly or indirectly from experience; but that is not the case with the rules by which, connecting, comparing, judging, and inferring, we unite and divide the matter, and pass from one thought to another. The source of these rules is not to be sought without us; the feeling of necessary and inevitable validity, with which they impose themselves on our consciousness, is, on the contrary, a guarantee that they have their origin in that from which we can never separate ourselves, namely, in the peculiar nature of our mental being. Provided with these modes of apprehension, we face the manifold throng of impressions occasioned in us by the outer world; not till we apply them does the actual sum of internal states become to us knowledge. Thus we supply as innate the intuitive forms of Space and Time to

those impressions, whose mutual relations are henceforth transformed for us into the succession and contiguity of the phænomenal world of sense; thus we pass on to the observation of our data with the inevitable assumption, that all reality must rest on the foundation of enduring substances to which the variable attributes are attached as dependent and accessory; further, with the certainty that every event is bound by a causal connection as an effect to its antecedents. It is the application of these inborn beliefs that transforms our apprehension of objects into the knowledge of a universal whole made such by internal organization.

Much in these views, which still to a large extent guide the course of our scientific thought, will have to be otherwise conceived within our science itself. The inappropriate name of Innate Ideas must not mislead us to consider the principles of our knowledge or the concepts by which they are commonly for brevity's sake referred to—the ideas of Space, of Time, of Thing, of Cause, and the others of perhaps equal moment associated with them — as an original conscious possession of the mind. No more than the spark as spark is already present in the flint, before the steel calls it forth, do these concepts hover complete before consciousness previously to all the impressions of experience, and afford it in its solitude the entertainment which we might find in contemplating an instrument before the time when it can be used. Even in our later life matured by experience they seldom claim our attention in this shape; we have only the unconscious habit of acting and proceeding in our learning according to them; deliberate reflection is required to make these ideas the subject of our thought, though they have long unnoticed been the guiding springs of our judgments. Consequently, they are innate in no other sense than this, that in the original nature of the mind there is a tendency constraining it at the suggestion of experience to develop these modes of conception, and that, on the other hand, they are not conveyed complete by the matter alone of experience, to be merely

passively received, this special nature being required for the mind to be impelled by the impressions of experience to form them of itself.

Thus understood, the general correctness of this view can scarcely be held to be disproved by the manifold attempts to show that all these principles of thought are derived exclusively from the mechanism of immediate cognition. Language, with its terms *Cause, Origin, Dependence,* and *Connection of Reason and Consequent,* reminds us, to be sure, of the several facts and forms of experience on occasion of which we most readily became aware of the inherent relationships that the original nature of our reason presupposes in complex objects. But more accurate reflection will always bring us back to the belief, that all those observations did nothing more than afford the mind an opportunity of recalling an innate truth, and that of themselves they could not have imparted to us universal principles on which to judge all things. However nicely adjusted may be the relations between our ideas, their internal arrangement would not of itself give rise to the thought of a necessary connection between them, did not the nature of the mind itself make the demand for such. The most exact acquaintance with the mechanical actions and reactions between the several ideas will never bring us to understand the manner in which the most general assumptions in regard to the connection of all things come into our mind, if we do not recognise in the mind a tendency to form them which we must include in our conception of its original nature. What constitutes the real unity of the mind, by which it is distinguished as mind from the unity of every other being, is that it not merely compresses its various states into a mechanism of reciprocal action, but further strives, by means of the relating activity which it puts forth in the modes of cognition, to interpret the complexus of impressions as an orderly whole, and to transform it into the image of a world in whose internal connection it beholds the reflex of its own unity.

§ 3. In reviewing the several operations in which the task of this uniting and connecting knowledge is by degrees discharged, we have first of all to take note once more of that unity of the soul which means nothing more than the identity of the perceiving subject, in which are collected impressions from various parts of the external world and from various periods of time. It forms the prime requisite for every act of relating that is afterwards to become possible, but it does not suffice to give rise to such acts. Now our contemplation did not stop at the barren idea of the soul's substantial unity; experience taught us laws of action distinctive of the internal states of this mental being and of their mental influences; we saw how the mechanism of association and reproduction combined certain impressions more closely than others, and how a degree of system was introduced into the motley multitude of retained impressions, which gathered together the similar and separated the dissimilar. Yet even here, all these laws of the train of ideas by their operation created only relations between the several acts of the cognitive activity, created objects of an intuition that might afterwards come; they did not show the scrutinizing glance that apprehends and interprets that order. It is in a third performance that we first meet with this glance of the mental eye, in the *intuitions of Time and Space*, into which the mind's uniting and relating action translates, as into a new language of its own, the mutual relations of impressions.

It may indeed seem as if every series of impressions taking place in time by the mere fact of taking place must appear to us as a succession in time; and in like manner that the arrangement of objects in space would require only to be perceived, without the given content being altered by, or the forms in which it is to appear being evolved from, any special energy of the mind. On the contrary, just in so far as a series of impressions goes on in time within us, it is never in our consciousness as a whole, not even present as a complexus arranged in time; we become aware of its course and of the systematic character of its course only when we gather together

in one undivided act of knowledge past and present members of the series, and survey all their mutual relationships at once. If, therefore, our internal states flow on actually in order of time—against which natural supposition we will not here bring forward objections hard to be dealt with—these actual time-relations of our impressions are yet only conditions that compel the soul by a new and peculiar reaction to educe from itself the intuition of time, and that at the same time enable it to assign to each several impression its appropriate place in this intuited time.

What seems to us here difficult becomes plainer in the other example—space. For we are not likely to attribute extension in space, size, and situation to the impressions of things in ourselves; however great may be the presented content, the idea of it does not extend to equal spatial dimensions in our soul. Whether, therefore, the outside world does or does not possess that spatial reality in which we think we see it, at any rate the impressions conveyed from it to us co-exist in our mind out of space, like simultaneous musical notes, and the mutual relations between them are not those of position, direction, and extent, but may be compared to the graduated affinities that divide tones from one another by intervals not of space, and connect them together. Out of this world of spaceless impressions the soul fashions the perception of the world of space, not because the external is in space, but because space is a word of its peculiar phraseology, into which it translates the spaceless stimulations received from the external. And just as we, accustomed to the language of sense-perception, re-translate the harmonic relationships of tones into the space symbols of high and low, of ascending and descending through intervals, so the soul, under the guidance of the original supersensible relations of impressions, proceeds to assign to every impression its position in respect to every other in the space-world of thought created by it. Thus both space and time, the relations of impressions in both space and time, are not something found and picked up all ready on its path by

our cognitive energy, but are evolved from itself. Whether we were right in saying that it translates the relationships of impressions and of external objects into a new language peculiar to itself, may for the present remain undecided. Perhaps the outer world is in itself one of space; perhaps events really take place in time, in that case our consciousness, while speaking its own language, at the same time lighted on that which is the language of things; but its energy was not on that account either different or less its own. For even those of us who use the same language and the same thought, do not inspire one another directly with the full import of our thoughts; we first of all hear only the intrinsically meaningless sound of the uttered words, and have by our own energy to reproduce from it the same idea—at one time of a concrete object, at another of an abstract relation, and on a third occasion of an event.

It is through an unconscious activity of our mind that the spatial picture of a surrounding world comes into being in this manner, as well as the perception of a flux in time of events without us and within; never do those original relations of impressions, of whose gradations these forms are to us the embodiment, become in their own true form objects of our consciousness; never do we watch our own energy at work in building up that world of space and time, which on the contrary always seems as if presented to us complete, and allows us without any trouble on our own part to look into its multiplicity. But yet in other ways this conception of the world of sense everywhere shows traces of a relating knowledge that has dealt with its several parts. For it is never actually limited to the presentation of a contiguity *in space* and a succession *in time;* even this sense-image of the world is throughout pervaded by thoughts of a graduated *internal* dependence, without which its perceived order would be to us unintelligible. Not merely like a mirror does consciousness render back the shape of the external; bringing single parts together into smaller wholes, and shutting them off by boundary lines from their environment, it introduces lines that are

not in the picture as given, but start from the assumption of an unequal internal coherence that sometimes binds together the comparatively remote more closely than the adjacent. The new arrangement of import and meaning into which we throw the objects perceived by sense, we make partly under the direction of the natural mechanism of our associations of ideas, but that alone does not enable us to complete the work. By retaining previous impressions and bringing them up again, when the new impression though altered recalls them by particular features still preserved, it by degrees collects materials for a connected experience, which can, however, be realized only by the aggressive activity of *thinking*.

§ 4 External perception brings to our consciousness in relations of space and time much that is held together by no common meaning, but owes the temporary coherence of its alien constituents merely to some special accident. Memory retains faithfully and impartially what it received from perception; recalls the unconnected with no less accuracy than the essentially related, and throws our train of ideas, attached to single impressions by inopportune associations, out of the constant direction that it might take through the sequence of thoughts springing out of one another. But the mind is not content to have connections of ideas imposed on it by the mechanism of perception and memory; as an abiding critical energy, Thinking seeks to test all of these by the grounds of right that determine connection and show the consistency of the co-existent. Thus it separates from each other the impressions that without any internal cohesion were together present in the soul, and renews while confirming the combination of those which, from the kindred nature of their content, have a right to be permanently associated. In all this it is directed and aided by that very mechanical course of ideas which it is correcting; for this of itself, contradicting or confirming earlier perceptions by fresh ones, introduces its own improvement by a gradual sifting process, in the course of which incongruous elements are divided and those which are allied are brought together. Nevertheless the train of ideas

alone is not *Thinking*, and does not by itself discharge the offices which we require of the latter.

Oft-repeated similar ideas are not only retained in their whole peculiarity, but along with them are formed at the same time more general and indefinite images, in which the points of resemblance between individuals are collected and their differences effaced. But the mere presence of these images—products of the mechanical course of ideas—is not equivalent to the possession of *Concepts*, in whose form Thinking refers the manifold content to its corresponding *Universal*. For in the latter is always implied the subsidiary thought of a determining rule, by which the several characteristics of the universal appear not only as an actual combination repeated in many singulars, but as a coherent whole, secured in their connection by the indivisible meaning of that of which they are the image. It matters little how advanced is our knowledge of the basis and significance of this coherence, our conception is sufficiently sundered from the mere image itself if the coherence is felt by us, and if we convert the simple aggregate of united marks which the course of ideas in itself presents into the thought of a whole. This conversion is performed perpetually by even the most unpractised thinker, when he uses a name; still more, when he puts the article before the name and designates the perceived object as *A something*, he has vigorously and unmistakeably enough performed this combination of the associated traits of the image into the thought of an inherently indivisible whole.

In the course of perception we often find two impressions united, which are separated by a rapidly supervening new sensation, but whose previous union is restored by a third sensation We had no reason to separate what were joined together in the first perception, we accepted them simply as bound to one another; the last-repeated perception of the combination, on the other hand, is opposed by a remembrance of its since observed dissolution; the two impressions no longer cleave together in the innocent fashion of our first perception of

them, but are kept asunder by the thought of their possible separation. Of the tree first seen with blossoms or leaves we preserve a single image all whose parts cohere in harmonious closeness; this image is disturbed by a subsequent perception of the tree as leafless, and, even when given to us afresh by actual perception, it is converted for us into an idea of the abiding form of the trunk, to which the leaves are attached as changeable, perishable parts. Such separations and combinations of ideas are what we in thinking express in the form of the *Judgment;* only in the judgment we say more than is contained in these. When we say of the tree, It is green, we apprehend it under the form of a substantial thing to which colour is variably and dependently attached in that manner in which all properties belong to their subjects. This implied relationship between thing and property is the source whence we derive the peculiar grouping of our ideas that divides no less than it binds together those which are mutually associated; in the nature of the inherent relationship between the substance and its attributes lies the necessity that here too exerts its constraining power in this particular way on the content of ideas. So in like manner when our perception of the motion with which a body approaches us is followed by the pain of the blow. In our memory the two impressions will be associated, but the judgment that the body struck us, is more than a mere repetition of the fact that the two impressions were wont to come one after another within us. When we indicate the body as the efficient cause, the blow as the effect, we justify the grouping together of the ideas by referring it to an inherent ground of connection, to the causal nexus whose universal sway over events is one of the primitive assumptions of the mind in regard to the relations of things in general.

From the frequent repetition of experience of one event following another it becomes at last a habit of memory to expect the one when the other presents itself. Such expectations, hopes, or fears as to the future, simple products of the mechanical course of ideas, sway us all in daily life,

and unquestionably a large proportion of our actions is governed by these immediate combinations of ideas, without further consideration of their origin, just as we are in the habit of supposing in the soul of animals, to which we rightly or wrongly attribute the mechanism alone, without the higher energy of thinking. In fact, those expectations are pretty much as serviceable to the animal for the practical ends of its life as could be a rational repetition of the same content in the form of a *Syllogism*. Nevertheless the syllogism involves a wholly different intellectual exertion from the instinctive expectation. Making use of the renewed perception as the starting-point of an anticipation, we in the syllogism justify the combination of the expected with the perceived by the thought of a universal law in virtue of which the two cohere. Thus here too either we derive the fact of association from a source that, as involved in the very nature of the thing, makes it necessary, or we convince ourselves that no essential inherent relation binds the two terms together, and that the expectation is one of the many illusions created by the mechanism of the course of ideas, inasmuch as it groups the various impressions not according to the affinities of their content, but according to the accidental circumstance of their simultaneous entrance into our consciousness.

Now, our sense-apprehension of things is already everywhere permeated with the results of this sifting, critical energy of mind; throughout it is not merely sentient, but also intelligent. Nowhere do phænomena hover before us as simple images, we think we see in them the things by whose unity and substantiality they, as properties, are combined into a connected whole; never in our observation of an event does the consequent state merely take for us the place of the antecedent, at most accompanied in our consciousness by the remembrance of the latter,—but we seem to ourselves to observe the causal connection that unites the two with the firmness of an inherent bond; finally, where larger groups of events succeed one another, the constraint of a pervading

order assigning to each reason its consequent, to each cause the kind and amount of its effect, seems to us conspicuous in their evolution. At the same time, this unceasing effort of the understanding to comprehend the world of sense-perception as an inherently connected whole, itself attains its satisfaction only with the aid of experience. We ascribe phænomena to beings that appear, events to causes, and laws to the connection of things; but we often make mistakes when we further attempt to assign to a particular phænomenon its special being, to a definite event its peculiar cause, to a given series its pertinent law. Only inasmuch as we are set free from the accidental associations of ideas formed through single perceptions by a happy variety of observations and a steady attention to their distinctions and resemblances, do we gradually become cognizant of the more general and essential connections, and our conception of things ever more and more adequately complies with the demand of the understanding to have the presuppositions, which it of necessity makes in regard to the general connection of things, shown to hold good in the heterogeneous materials of the actual world. But the history of this gradual development does not belong to the circle of subjects which this first survey of our mental life is meant to embrace. As it is merely an investigation of the means by the use of which a beginning may be made in the process of human culture, we must be content with having showed how far that culture is from being contained ready-made within us, and how even our innate capabilities can discharge their office only because their vigour increases by use, every acquisition in knowledge enhancing the mind's power to extend it.

§ 5. A widely prevalent theory finds in the human mind, beyond Sentience that perceives and Understanding that relates, a still higher cognitive energy—the activity of *Reason*, that, aiming at unity in our conception of things, seeks to complete experience. Questionable as it may seem to place the reason as a new and higher faculty above the understanding, with whose habitudes its peculiar requirements seem in fact to be in conflict, this new name really denotes a new

and peculiar form of relating thought, too important in the actual life of mind not to be touched on here, before we proceed further to investigate its origin.

In each single case of experience the understanding sets to work, in conformity with the laws of connection that it presupposes as universally valid necessities, to search for the nearest complementary part, which perception implies and requires. For it seeks to refer each several display of properties to a being making it, to connect each several event with a cause that produced it, and with effects to which it will itself give rise, and to find for each group of facts the law by which it is governed. Thus advancing from point to point, so far as driven by the occasions of experience, it merely binds together particular point with point; it does not set to itself the question, What general scheme of the universe and its relations would finally be reached, if these rules of judgment were applied to all actual and conceivable cases of perception as often in succession as the nature of each would seem to require? The understanding does not concern itself as to how the ascending series of causes required anew by each cause of a single event will terminate; in what sort of combination the countless threads of orderly connection, which its keen vision traces as they run along side by side, may at last be interwoven together; finally, on what kind of unconditioned existence depend the multitudinous conditioned actual forms of existence, whose mutual relations, as soon as they exist, go on in obedience to its laws.

We may seem to make a mock division of labour when, having asserted that the understanding does not put these questions to itself, we now add that in the answering of them reason finds its office. Unquestionably both are akin in their efforts after comprehension of the manifold, but the idea by which reason is therein guided — that the sum of reality can exist only as a perfect unity and totality—is not the same principle as that by which the understanding investigates the kind of connection between every two several parts, without making any affirmation as to the form that

all combined will assume. As the style of architecture which we select for a building determines the way in which every part of it is to be combined with every other, but leaves wholly undefined the final form of the structure, the plan of which, on the contrary, is prescribed by the end it has to serve: so the principles of the understanding exhibit to us the style of the world's construction, but not the form of the outlines of its completed whole. We are far from maintaining that reason solves this problem, and do not even feel that we can congratulate the understanding on the full accomplishment of its humbler task. The latter is often deceived, by the habits of a limited experience, as to the meaning of the universal laws that, it believes, regulate the connection of things; chained to the examples of phænomena presented within a sphere of experience that for any finite mind is but limited, we too often take the particular form assumed in special cases by the orderly connection of things, for the pure and universal necessity that we thought to find reigning throughout. Thus we fall into many perplexities concerning the true import and the limits of validity of the principles that for long we applied to a customary sphere of experience with the fullest assurance of their necessity and immediate clearness.

The more these difficulties weigh upon us, the less must reason limit the conception of the universal whole, of which the details have been but imperfectly communicated to it; it can only lay down quite general requirements, compliance with which it demands of all who hazard this undertaking, and, under the pressure of the conflicting interests with which our desires and cravings complicate the actual state of the facts, it will itself not seldom fail to understand what it has to demand. These efforts of reason, as they appear in the immediate life of mind, will need the aid of science to make their own ends clear even more than the surveys of things made by the understanding, and still less than the latter are they capable of attaining their end simply as a natural tendency of mind, without the discipline of a

definitely directed training. But in the course which they take, there are nevertheless signs of a peculiar action of mind deserving of attention, the source of which we believe is to be found not in the soul-nature as solely ideating or relating, but in another feature of its being, to which we now turn.

# CHAPTER V.

## OF THE FEELINGS, OF SELF-CONSCIOUSNESS, AND OF THE WILL.

Origin of the Feelings—Their Forms and their Connection with Knowledge—Reason's Determinations of Worth—Self-Consciousness; the Empiric Ego and the Pure Ego—Impulses and Efforts—Will and Freedom of Will—Concluding Remark.

§ 1. AS the colour of a picture heightens and increases the effect of its drawing, so do *Feelings* of the most various kinds pervade all the manifold events of ideational life which we have till now been describing. We have already convinced ourselves that we cannot trace the origin of feelings immediately to the complexities of ideas which give occasion for their appearance. If it was an original peculiarity of mind not only to undergo changes, but to apprehend them as presented in thought, it no less originally belongs to it, not merely to present them to itself, but also to become aware of their value for itself in terms of pain and pleasure, as they sometimes stimulate it in harmony with its own nature, sometimes claim from it modes and combinations of states contrary to the natural course of its activity. For pleasure finally reduces itself to this, that to the mind destined not for repose but for development, stimulations are conveyed which, harmonizing with the direction, the conditions, or the form of its vital evolution, not merely protect it from attack, but promote its own striving. And just as the soul, as a changeable and active being, in pleasure becomes conscious of this exercise of its power as of an enhanced value in its existence, so is it endowed with the capacity, not of either merely submitting to, or perishing from, the disturbances that would divert it from its own path, but, in pain, of feeling them as what they are, as disturbances of its permanent

course, and of dividing them from the natural development of its being.

It is we investigators assuredly who in the first place give to ourselves this explanation of the origin of the feelings; we carry out the comparison of the impression with the conditions imposed on the life of the soul by its own nature; we believe that we have in the painful a conflict between the excitement produced and the requirements of these conditions; in the pleasurable, their harmony. The soul that feels does not always make this comparison, and never makes it at the very moment of feeling. No more than it is conscious of the bodily processes by means of which sensation is produced, does it anticipate before the rise of feeling the conflict or harmony of the impressions with the conditions of its life, and, according to the result of this comparison, associate with it pain or pleasure. Unacquainted with those conditions, as unacquainted with the processes in the organs of sense, it could not itself carry out this comparison; and as only the final result of the processes giving rise to the sensation, viz. the sensation itself, appears in consciousness, so do the feelings rise within us without revealing the internal motion of the soul whence they spring. But once there they must be accounted for as we have done, and unsophisticated consciousness never doubts that pleasure has its roots in some unknown favouring influence that has been shed on our life, pain in some disturbance of it. Lastly, as growing experience corrects our associations of ideas, so does it also more exactly define this inference. The momentary help which we gain from an impression is no guarantee of the salutary character of the after-effects which it brings to bear on our whole life, and the single advantage gained for us by one property of a stimulus does not prevent the influences proceeding from the others from being hurtful. Feeling is in the right, even if it is pleased with the sweet taste of a poison, and finds the antidote bitter; for in the former there is a momentary harmony between the impression and the energy of the nerve, and in the pain of the latter an antagonistic disturbance of

our prevailing state Experience does not retract these judgments, it merely gives a warning not to rely on them exclusively, and teaches us to judge of the total value of an impression only when we have struck the balance of the total sum of its consequences, and of the helps or hindrances attached to them

§ 2. Various are the forms under which feelings present themselves alike in the sentient and in the intellectual part of our nature. Sometimes they appear associated with a particular impression whose matter and form are besides apprehended by means of a distinct idea, sometimes they diffuse themselves, without any clear intimation as to their origin, as moods over the mind, like illuminations proceeding from a hidden source of light by countless reflections of the rays. Associated with many sorts of bodily states, by which they are caused, or which they themselves cause, attended now by a numerous, now by a scanty train of remembrances, each several part of which is seeking to revive the interest peculiarly annexed to its content, crossed finally by many efforts either clearly conscious of their aim or vaguely groping after it, the mind's moods assume a multitude of finely shaded forms, far removed from the dull comparability of a mere variation in degree of general pain or pleasure. The advance of culture, too, by enlarging the capacity of consciousness to embrace manifold ideas, increases also the intricacy of these cross-currents of feeling, and produces that boundless variety of emotional stirrings which even art not always, and the more imperfect means of scientific analysis never, can succeed in representing.

Without at present entering on this labyrinth, through which the consideration of human culture will afterwards compel us to thread our way, we may mention three directions in which feeling acts on the connection of our intellectual life as a most momentous force. We must above all wean ourselves from the habit of looking on the feelings as subsidiary events that sometimes occur in the succession of our internal states, while the latter for the most part

consist of an indifferent series of painless and pleasureless changes. Save one of complete repose, we can conceive no state not either in harmony with the conditions of psychic development or somehow contrary to them Whatever stimulations, then, the soul may undergo, from each one we must expect an impression of pain or pleasure, and more accurate self-scrutiny, so far as it can recognise the washed-out colours of these impressions, confirms our conjecture, unable as it is to find any manifestation of our mental activity not accompanied by some feeling. The colours are indeed washed-out in the matured mind, in contrast to the preponderant interest which we bestow on particular ends of our personal endeavours, and deliberate attention is needed to detect them, just as microscopic examination is necessary to trace the regular formation of invisible objects, which the unassisted eye is wont carelessly to overlook. To each simple sensation, each colour, each tone, corresponds originally a special degree of pain or pleasure ; but, accustomed as we are to note these impressions only in their significance as marks of objects, whose import and notion are of consequence to us, we observe the worth of these simple objects only when we throw ourselves with concentrated attention into their content. Every form of composition of the manifold produces in us, along with a perception, a slight impression of its agreement with the usages of our own development, and it is these often obscure feelings that give to each several object its special complexion for each several temperament, so that, with the same complement of properties for all, it yet seems to each of us different. Even the simplest and apparently driest notions are never quite destitute of this attendant feeling ; we cannot grasp the conception of unity without experiencing a pleasant satisfaction that is part of its content, or that of antagonism without participating in the pain of conflictive opposition ; we cannot observe in things or evolve within ourselves such conceptions as *rest, motion, equilibrium,* without throwing ourselves into them with all our living strength, and having a feeling of the kind and

degree of resistance or assistance which they might bring to bear on us. A considerable part of our higher human culture is the result of this pervading presence of feelings; it is the basis of imagination, whence spring works of art, and which makes us capable of entering into natural beauty; for productive and reproductive power consists in nothing else than the delicacy of apprehension by which the mind is able to clothe the *world of values* in the *world of forms*, or to become instinctively aware of the happiness concealed under the enveloping form.

But feeling further contains the principle of that peculiar and highest activity which we encountered in the sphere of intelligence, namely, of that *reason* which requires of the actual sum of things conformity with forms of existence in which alone it finds a guarantee of the value of the actual If we are equally unwilling to attribute to the universe either the finitude of a fixed quantity or absolute infinity, if we require that its conception be that of a whole and an essentially complete unit, and at the same time that it should comprehend all individuals, we follow in this and other requirements no longer the mere inclination of an uninterested *understanding* to which an object would be unthinkable without these conditions, but the inspirations of a *reason appreciative of worth*, that rejects even the thinkable so long as it is only thinkable and does not besides by the inherent excellence of its content win recognition of its worth in the world. Hence to the understanding by itself much would seem possible and correspondent to the laws of its procedure, which reason will deride on account of its inherent incredibility; it may claim much else that the understanding fails to apprehend in its peculiar forms of thought. If we examine our theory of the universe, as it has been matured in the course of the culture which we have acquired, not only through the reasonings of science, but also through the experience of life, we shall find it to a large extent determined no less by these often secretly co-operating requirements of our reason, than by the obvious principles of

our understanding. The scientific energy of understanding wearies itself with working at the problems set before us—the difficulties raised by the alteration of things, the variety of their properties, the vitality and freedom of all development; and, even though its labour is not in vain, it yet is unable to vindicate the notions of living freedom and activity so clearly as to give binding authority to men's unquenchable trust in the future. The human spirit is endowed with the happy inconsistency of being able unsuspectingly to follow two lines of thought at once, without being aware of the contradiction in which they will sooner or later clash together. Thus in the path of ordinary experience we unhesitatingly adopt the modes of procedure of the understanding, by which we are always sure to be able systematically to connect particular with particular, and by means of which we might be equally assured—did we but take note of it—that we should never attain to that conception of the universal whole, which during all these efforts our reason is holding fast or seeking to gain.

Not always, of course, do the events of life leave us in this state of obliviscence; in the life of the individual as in that of the race we see how at certain critical moments there inevitably springs up a consciousness of the great chasm that yawns between our scientific experience in the finite sphere and our belief as to the matter and form of the eternal. But neither of this conflict in the individual mind nor of the more impressive forms which it has assumed in the history of culture and speculation, must we in this preliminary survey forestall our future description. Whatever has been the final decision, in actual life—in which the evidence of our thoughts is different and differently distributed from what it is within the boundaries of science—these varying judgments have never been able to shake the belief that, in its feeling for the value of things and their relations, our reason possesses as genuine a revelation as, in the principles of logical investigation, it has an indispensable instrument of experience. But, at the same time, a review of those judgments would teach us that no source of revelation is less clear than this,

none so much needs a firmer basis as this, which has no other foundation for its affirmations as to the necessary form of the world than the feeling of the value which it finds in it, and which it thinks it would fail to find in others that are conceivable. Numberless circumstances may here deceive us; numberless habits of thinking and perceiving, formed imperceptibly and proceeding from individual peculiarities, from the level of culture of the age, or from the limitation of our personal experience, may mislead us to seek obstinately in a single fixed form, or blindly and incorrectly in a wholly wrong direction, that which we would be justified in requiring in a general way. While, therefore, these higher views of things, as men choose to call them, will continue to be the animating and quickening breath of all human efforts, they will yet always confirm the affinity between the worth-determining reason and the artistic imagination; in what they have produced, the feeling of poetic justice invariably fills the place of insight into the grounds of certainty. These views form an intellectual treasure which is invaluable, but for which it is not easy to find a common standard of value, and science must perhaps be content if it succeed in demonstrating that the clear and irrefragable principles of the understanding are nothing else than the explicable parts of that treasure elaborated so as to be ready for use—not attached to it as something extraneous, but proceeding from itself, as the only methods by which we can, from our human point of view, succeed in realizing the special tendency and aim of reason—to bring the actual world into the unity of a harmonious whole.

Now, if these attempts of our mind to explain the world of values by the world of forms correspond to the conceptive energy of imagination seeking to create the actual anew from its own beauty as from a working power, then *Practical Reason* stands on a line with artistic production of beauty. Different ages have striven after different ideals of art, but however fantastic might be the form in which an unrefined imagination thought to have attained the expression of the highest, all recognised as their ideal that which they reverenced. Scarcely less

diverse have been at different periods and stages of culture the Moral Ideals of the Practical Reason; but, whatever might be their content, it was felt as a duty to realize it in action, and the moral principles of each age were always sanctioned by the soul otherwise than were the truths of cognition; they too were dictates of an appreciative feeling. A culture that from many various quarters has taken in enlightenment as to man's position in the universe, the measure and conditions of his powers, and the abundance of realizable good, may fancy it has risen above this point of view, according to which the consciousness of our moral obligations flows from a Moral Sense. To us, of course, the matter of the fundamental moral precepts appears so clear that we suppose their inherent necessity must be self-evident, just as the simplest cognitive principles have, at least as regards their unconscious practice, been self-evident to all peoples. Nevertheless, the experience of life teaches us how much variety, even though within narrower limits, there is in the substance of what individuals, with equal conviction and fervour, accept as the binding rule of their action. And a more extended survey would, on a comparison of different nations and civilisations, reach hardly any other result than this, that everywhere dispositions and actions are among the objects of worth-determining reason, but that this reason, in the recognition of its ideal in definite modes of action, is liable to illusions similar to those in which attempts at a higher knowledge of things often end. Even the world of ethical convictions is a result of culture; we have to put together, in the great picture of humanity to which these considerations serve as an introduction, the significant indications that, but for the numerous influences of culture, morality could not have come into being; but here we have occasion only to mention that neither did it come into being through culture alone, but that it has its roots in the essential constitution of mind. Far from simply rising, as an attendant accessory, out of the exercise of ideational activity, morality, on the contrary, rests on this basis of feeling, which much more than cognition is peculiarly significant of the true nature of mind, while its

influence, as we have seen, extends most unmistakeably to the exertions of our cognitive intelligence.

§ 3. But we promised to trace the workings of feeling in three directions, and the assertion just made reminds us of the second of these series of mental phænomena, which we cannot understand without giving them a basis of feeling, though they are most commonly treated as facts purely of the cognitive life. I mean *Self-consciousness*, in which we distinguish ourselves as *Ego* from the *Non-ego* of the rest of the world, and refer our manifold inner states to this Ego, as the cohesive centre of afferent and efferent actions.

To earlier thinkers it often appeared as if self-consciousness formed the essential and inborn characteristic, without which mind itself would be unthinkable, or by whose presence it is at least distinguished from the selfless soul of the lower animals. This opinion has been gradually given up, and we have become accustomed to look on self-consciousness as the result of a long course of training, whether we consider effort for its attainment to be the motive power in all mental development, or whether we hope to see the consciousness of the Ego spring from the mechanism of the train of ideas as one among several secondary products. The nature of the thing seems to require us to take another path, midway between these conceptions. Certainly no one can seriously hold self-consciousness to be an inborn endowment of the mind in such a sense that from the first we see distinctly mirrored before us *what* we ourselves are. Even with all the aid of the training of life and of the attention of deliberate reflection, we never attain to this perfect knowledge, whose exhaustive detail would render superfluous all further questions as to the peculiar nature of our being. Our consciousness never presents to us this image as found; we are merely directed to a more or less obscure point, in which lies our Ego, of which we are in search. But that we can seek it, that what we know so imperfectly we yet always discriminate with the utmost decision from the outer world, this impulse we cannot understand without conceiving it as independent of the circumstances that condition

the advancing perfection of our knowledge about ourselves. How then do we come to divide the multiplex objects of thought into these two parts—the *one Ego*, and, facing it, the inexhaustible fulness of *all else?* Our distinction of ourself from things does not resemble that which we make between two other objects; on the contrary, the contrast between ourselves and what is not ourselves manifests itself as unconditioned in meaning and extent, and not to be compared with any other

Very naturally so, it will be said: have we not here a special, nay, absolutely the only case in which that which thinks this relation of contrast is itself one of its terms? This coincidence of thinker and thought, the essential characteristic of what we call the Ego, must justify the special prominence which we give to this distinction. But, examined more closely, this circumstance is found to throw very little light on the enigma of the peculiar interest which we take in this distinction, and which has very little in common with that awakened by the peculiarity of a rare phænomenon. The significance of self-consciousness lies not in the coincidence of thinker and thought; for this is characteristic, not of *our* Ego alone, but of the universal nature of *every* Ego, from which we properly distinguish our own—how? To be sure by its being the thinker of *our own* thoughts. But what do we mean when we call any thoughts our own? There must evidently be an immediate certainty as to what is ours, and it cannot flow for us out of the general idea of the nature of the Ego, from which to distinguish our own case is the essential office of our self-consciousness. And now it will be easily understood how little an ever-growing fulness of insight into the *nature* of our soul would fill up the chasm we find here. For, even if we could correctly and accurately enumerate the peculiar characteristics that distinguish our soul from others, we should still have no reason to take the idea so acquired for more than the indifferent representation of a being somewhere existent, and as completely distinct from any second as any third is from any fourth. If, further, it did not escape our notice that the being so clearly seen through in the light of

perfect knowledge was the very same as that which at this moment completed its intuition of itself, we would indeed have given, in this actually accomplished self-reflection, the last characteristic crowning touch to the picture of that being, but we would still be far from having reached anything so significant as what in actual life we know and possess as self-consciousness. This perfect knowledge would indeed imply that our own being had become to us clearly objective,—objective in such a sense, however, that our own self would appear to us but one among many objects; the intimacy with which in our actual self-consciousness we feel the infinite worth of this return upon ourselves would still remain unknown and unintelligible. Like all values given to objects of thought, this too is apprehended only by means of feelings of pain and pleasure. Not as thought, but as felt in its immediate value for us does the identity of the thinker and the thought form the foundation of our self-consciousness, and once for all lift the distinction between us and the world beyond all comparison with the differences by which it discriminates between one object and another.

To this end simple feelings of sense are adequate no less than those more elaborate intellectual ones by which highly developed minds bring home to themselves the worth and peculiar merit of their personality. Whether the soul's idea of itself be full or scanty, the image which it delineates a likeness or a caricature: that makes no difference to the vividness and force with which the matter of this image is felt as different from all else. The crushed worm writhing in pain undoubtedly distinguishes its own suffering from the rest of the world, though it can understand neither its own Ego nor the nature of the external world. But the consummate intelligence of an angel, did it lack that feeling, would indeed be capable of keen insight into the hidden essence of the soul and of things, and in full light would observe the phænomena of its own self-reflection, but it would never learn why it should attach any greater value to the distinction between itself and the rest of the world than to the numerous differences between things in

general that presented themselves to its notice. Thus self-consciousness is to us but as the interpretation of a sense of self, whose prior and original force is not directly increased by the advance of our knowledge; only the fulness and clearness of the representation that we make of our own being keeps pace with our progress in culture. There is, of course, an equal increase also in the sum of the thoughts that bring external objects into relation with our efforts and volitions; the content of our Ego not only becomes clearer, but it extends over an enlarging circumference; thus, too, the vividness of the sense of self indirectly increases, inasmuch as the matured soul becomes capable of innumerable relationships, that to it are helps or hindrances to its own being, while to the undeveloped mind they seem merely indifferent relations between external things.

§ 4. The delineation of the course of this growth we must also defer till we come to discuss the relations of human life by which it is conditioned, only in a few words alluding to some points of it which will bring us to the last subject of our survey. It is easy to understand how at first the image of our own body must hold a prominent place in our thoughts. As the instrument of all perceptions and all movements, it is entwined with every manifestation of our life, and every remembrance of an impression, an action, a pain, or an enjoyment recalls its image also, and accustoms us to discern directly the activity of our being in the moving and moveable bodily form. But just as simple are the experiences from which we soon gain the conviction that the vitality in it is not itself, that we have to seek in it indeed, but not extending into its visible form, a moving force, the common cause at once of its own liability to change and of the living transformations of the inner world within which our ideas, feelings, and volitions jostle one another. This imperfect conception doubtless contents most men, more apt to look beyond the idea of the body than intent on any other definite point. Science seeks indeed to fill up this gap by efforts to grasp the obscure being of which it is in search in the form of a thing, a supersensible force, or an immaterial substance; but

these attempts lie beyond the sphere of natural and unconstrained thought, and, as directed towards establishing the universal nature of the soul, they do not tend to enlighten the individual as to the distinctive nature of his own Ego. Hence ordinary consciousness is little disposed to indulge in such brooding reflection; it prefers to enjoy its individuality, knowing full well how to distinguish itself from every other Ego by recollection of its bodily appearance, of the story of its life, of its joys and sorrows, achievements and hopes, in general of its peculiar position in the world.

But it also learns by experience how the world offers it resistance, how little it can next moment become what last moment it meant to become; it finds its knowledge and its power dependent on the accidents of its course of culture; its whole individuality, so far as under its own observation, seems at the mercy of circumstances alien from itself. Thus we come to set in contrast to the sharply delineated image of the *empiric Ego* another, in which we think we collect the permanent characteristics that form the true content of our being, and are independent of the particular modifications which have been caused by external influences. As, in considering anything, we separate the accidental form which it owes to extraneous action from the unchanging properties that qualify it to assume its present form (as under other circumstances they would cause it to appear under quite different forms), so we now seek our *true Ego* in the permanent habits and peculiarities of our mental action, which would always have remained the same, even had the external conditions of their development been wholly diverse. Accordingly, we do not believe that what we know, what we have done and suffered, exhausts our Ego; but taking the manifold results of this development only as one of the many ways in which it was possible to unfold our nature, we find *ourselves*, on the contrary, in the general mood of our feelings, in the temperament which in us is not quite the same as in any one else, in our whole mode and habit of being, whether lively or dull, in our peculiar manner of dealing with the body of our knowledge.

All this, we fancy, would have been quite the same, whatever course of development had been allotted to us by destiny; and if we readily set down to the peculiar merit of our nature all fair and admirable culture which our actual situation has enabled us to acquire, we yet do not doubt that everything perverse and blameable is to be ascribed to the hindrance of circumstances alone. The empiric Ego appears to us like the foliage of a tree, whose degree of fulness and beauty depends on the influences of the year; even if it be stripped off, the vegetative force remains in the trunk unaltered, and justifies the hope of better results under more favourable conditions. Thus, by this æsthetic picture of our abiding disposition, we are chiefly used to make our personality distinct to ourselves, and certainly we thereby attain to a truer and more speaking likeness of our nature than is supplied by the heterogeneous multitude of our actual remembrances, which include too much of the past and accidental and too little of the future. But after all, we soon come to perceive that even this idea does not afford what, in the highest meaning of the word, we are seeking as our true Ego.

For in only too great a degree do we find our temperament, our prevailing frame of mind, the peculiar direction and the liveliness of our imagination, lastly, the conspicuous capacities that seemed at first to form the endowment of our purely individual personality, dependent on our bodily constitution and its changes; nay, as inherited predisposition, much of it is but the result of a course of Nature that long prior to our own existence had already irrevocably fixed certain tendencies of our coming life. And even if we were not thus indebted to the chain of physical effects, if, on the contrary, our soul had been in its essence moulded apart from it, still even then its original capabilities would appear as something given, as an endowment from the creative power from which our temporal existence sprang, and where we expected to grasp a self of our own, we would find something established by an outside power, not our own, in the sense in which we

possess what we have won by our own exertions and spontaneous energy. Thus is formed the longing to transcend the content of our Ego, and in a pure, as yet undetermined, and self-moulding impulse to seek the true and fundamental essence of our personality; in this we seem to ourselves to be really only what we have made ourselves. We will not track the strange contradictions into which, in scientific inquiry, this course of thought must necessarily lead; the more natural instinct of the unprejudiced mind is open to conviction here, and does not require that all not done by ourselves should be excluded from our being Confessing, what it cannot deny, that without any choice of ours the extent of our possible development is unalterably fixed by external circumstances by the peculiarities of the race to which we belong, by the bodily constitution with which we enter life, by the age in which we are born, lastly, by the general laws of mental life, which are alike for all, it is content with requiring that amidst all this necessary order there be at least one point of freedom, whence our energy may mould this material of existence offered to us into a possession for ourselves alone. Conditioned in all else, in the forms of our knowledge, in the course of our ideas and feelings, we will be free at least in willing and acting.

§ 5. We have already expressed the conviction that, besides Ideation and Feeling, *Volition* contains a peculiar element of mental activity, not derived from these two, though dependent on them as the occasions of its appearance. Now, however, when we come more closely to consider this new mode of psychic activity, we must premise the acknowledgment that, among the various phænomena which under various names are either directly ranked with it or attached to it as of kin, there are many in which we can recognise only special forms of ideation and feeling. We are unquestionably too lavish of the names *volition* and *effort*, and denote by them many processes to which the soul is related not as an acting being but only as an observing consciousness; movements of ideas and feelings that merely take place in us on various occasions supplied

by the general psychic mechanism, *and are noted by us as taking place*, we erroneously take for energies put forth by our decided Will or by some less definite effort of our Ego.

If we examine the manifold *Impulses* of sense, we shall always find as their peculiar nucleus a feeling that in pain or pleasure discloses to us the value of a bodily state perhaps not rising to conscious clearness. Only because we have had experience, which the mechanism of remembrance brings again before us, so that the ideas of the motions or of the objects that have previously prolonged pleasure or shortened pain are now again in consciousness, does the feeling pass into a movement directed towards the restoration of these favourable circumstances. Our will, however, does not immediately manifest itself, but wholly without volition and with mechanical sequence, feeling itself and the ideas associated with it at once start the bodily movements serving to that end, and what we call impulse is not a volition by which we guide the body, but a perception of its passive state and of the movements arising involuntarily within it, by which the other energies of our consciousness are brought into corresponding exercise. Impulse, accordingly, is nothing but the apprehension of being impelled; and if any volition mingles with it, it is simply the volition not to resist but to give way to the natural current of these inner changes.

But we cannot confine this consideration to sense-impulses, the greater part of what in daily life we call our actions are performed quite in the same way. Ideas start up in us according to universal laws, and to these become attached in part directly, in part through the intervention of various feelings, all sorts of images of bodily movements, which hover before our consciousness sometimes as means of reaching an external object, sometimes as alleviations of a present pain. Very rarely is a real volition produced by this pressure of internal stimuli; the train of ideas in general passes spontaneously into external movement, and a great number even of complex actions take place in this involuntary fashion,

and that even though the series of intermediate links, through which they are connected with the original moving force, be not fully unrolled in consciousness. There is no reason why these processes should be distinguished by a different name from the actions which we find occurring in every composite organism with like variety of form and like mechanical necessity of sequence; and in fact we are usually disposed to deny volition proper to the lower animals, whose manifestations we suppose to have no other source than this. We are convinced that we meet with an act of will only where the impulses urging to action are apprehended in distinct consciousness, where, moreover, the decision whether they shall be followed or not is deliberated upon and is left to be determined by free choice of the mind, which is unswayed by these pressing motives, and not by the force of these motives themselves. So intimate is the connection between the notion of *Freedom* and that of *Volition;* for in this decision concerning a given matter of fact consists the true efficacy of Will. On the other hand, Will can have no content other than that supplied by the involuntary flow of ideas and feelings, and, not being itself an outwardly directed effort, moulding and creative, must be content with unrestricted freedom of choice between the objects thus put within its reach.

Now, were it impossible to conceive this freedom or to justify its acceptance as a fact, would we have any further occasion to retain the name of Will? However much mental life may surpass Nature in the peculiar complexity of its processes, its connection would then seem in no wise essentially to differ from the complete and blind necessity of an unbroken chain of mechanism. Nevertheless, we do not think that even on this supposition volition could be dismissed as a peculiar element from the series of manifestations of psychic energy, though its position would be a startling one. When men coin a special name for simple processes, not composed of a plurality of ideas, but, on the contrary, binding pluralities for the first time into a whole, they may often

make mistaken applications of it, and fail rightly to define the phænomena in which they believe the process occurs; but they will scarcely invent something having nowhere any actual existence. For, after all, our thought can only have for its matter what we have somehow experienced; and as we do not devise anything wholly new, we can hardly err otherwise than in the combination and application of the simple elements afforded by our inner experience. Accordingly, nothing else than pedantic prejudice, it would seem, can attempt to derive the nature of volition from mere cognition, and to vindicate the assertion that the proposition *I will* is tantamount to the clear and confident consciousness of *I shall*. Perhaps the mere assurance that I shall *act* may be tantamount to the knowing of my volition, but then the notion of acting must include the peculiar element of approval, permission, or intention, that makes the will such, and that is absent in the simple anticipation of the future occurrence of an effect proceeding from us. It is vain, therefore, to deny the reality of volition, as vain as it would be to endeavour by lengthy explanations to make plain its simple nature, which is only to be known directly through experience. The approval through which our will adopts as its own the resolution offered to it by the pressing motives of the train of ideas, or the disapproval with which it rejects it, would be conceivable even if neither possessed the slightest power of interfering, for determination and alteration, with the course of mental events. Just as external circumstances drive men to modes of acting absolutely alien or even repugnant to their disposition, so even in thought separate moments might form themselves into a chain of unbroken necessity, and unceasingly compel actions followed at the very moment by the impotent remorse of conscience.

This idea, startling as it may at first appear, is yet not so far removed from thoughts with which we are familiar in life. It may almost be said to be only scientific investigation that is apt to confound unlimited freedom of volition with exhaustless capability of performance; our experience

of life, on the other hand, warns us of our weakness in conflict with the mighty power of involuntary impulses, and we believe a higher aid to be needed in order that we may overcome it. It is, in fact, an error to require of the will more than volition, and the difficulties usually thrown in the way of the conviction of its freedom proceed mostly, though even in that case not irresistibly, from that prejudice. How often have fears of a destruction of all actual order been expressed as the result of free resolve on the part of an animated being, if it were not found possible to bring it into connection with the rest of Nature as a necessarily conditioned effect. This was to forget within how narrow limits the power of a finite creature would be confined even if its will not only were free, but also had the bodily organization absolutely at its disposal as the instrumentality of its resolutions. It was to forget that every effect, however free and arbitrary may have been its motive, as soon as it happens as an effect, takes its place once more in the circle of calculable events subject to universal laws, and that no freedom is allowed wider room for exercise than falls to it by right in the undisturbed order of things. Finally, to indulge the fear that nevertheless the processes introduced by the animated will at its choice into the actual course of Nature might, as they gradually accumulated, diffuse themselves in opposition to the plan of Nature, was further to overlook the fact that even the uninterrupted and unfree sequence of all states in psychic life would not lessen this danger. For where is the guarantee that in every individual mind, feelings, ideas, and efforts would always be mingled together and act on one another in so happy a form and degree that they must always end in a practical decision in harmony with the true import of the course of Nature? Do we not as we actually are, free or not, as a matter of fact interfere—to disturb or destroy—with the Nature around us, leaving behind many distinct traces of our wayward energy, while yet we cannot on a large scale shake the order of things? And if we hold now that an arbitrary and free will

directs our actions, would we, from considering the limits of our power, have occasion to dread a much more extensive disturbance of the order of the outer world? No more than does the Nature around us would our own nature lose all internal connection, as is so commonly thought, by coming into the possession of unlimited freedom of resolution. For it would still be only the resolves that we left free; the unity and stability of our personal consciousness would rest on the broad and secure foundation of the innate sense of our existence, of our idiosyncrasies, of the sum of impressions received, of the memory of past experience, of the abiding mood, of the perpetually efficient and universal laws of our train of ideas, for over these elements of our mental life that freedom would have no power. On the other hand, the amount of changeableness that we would still retain, through the arbitrariness of our resolves, would accommodate itself to the capacity of development which we must desire, more easily than to the change which we must shun.

But does not the universal Law of Causality, that for every effect will have a sufficient cause, finally bar the way against any doctrine of freedom, and inexorably convert the connection of the universe into an endless chain of blind effects? We should have thought that the more distinctly this conversion were required as the logical consequence of the above conception of the causal connection, the more distinctly apparent was also the incorrectness of the conception itself. So immovably firm is the conviction of our reason, that the sum of all actuality cannot present the absurdity of a blind and necessary vortex of events, in which there is no room for freedom, that no other task is left for the rest of knowledge than to bring the apparent contradiction of our experience into harmony with this conviction as the first certain point. We do not deny that this problem of science is still far from the happy solution that we desire for it, and, without here entering on investigations difficult to make and doubtful in their result, we may subject certain points of the common conviction to renewed examination.

If the causal law rightfully requires a cause for every effect, it is our fault, on the other hand, if we see in every event an effect, or regard the discovered cause as itself invariably the effect of another cause The indefinitely prolonged series in which we here involve ourselves, ought to turn our attention to the fact that the proposition in the premises affirms less than it seems to do. If we maintain that all substance is indestructible, we say what is true, provided we have included the attribute of indestructibility in the notion of substance; but we do not make any directly valid statement; for the very question before us is whether there are substances in this sense, and whether we are constrained by experience — which beyond doubt bids us add in thought to every group of properties and developments a subject as their base — further to conceive this subject itself as a so constituted substance. In like manner, all that we think and designate as an effect undoubtedly requires its cause, but it is a question whether we are entitled to consider every event that happens as in this sense an effect. The very infinitude of the series of causes is a proof that we are not, for it necessarily leads to the recognition of a primitive being and a primitive motion. What constitutes the absolute authority of the causal law is not that every part of the finite sum of things actual must in the finite sphere be produced by fixed causes, according to universal laws, but that each constituent once introduced into this actual course continues to act according to these laws. We commonly speak only of every effect having its cause, but we should on the contrary lay stress chiefly on the other form of the proposition—every cause infallibly has its effect. The meaning of causality consists not indeed exclusively, but (it seems to me) in its more essential part, in its securing to every element of the actual world, springing from no matter what source, means of acting energetically on the other constituents of the world to which it now belongs, at the same time preventing it from acting within that world otherwise than in harmony with the universal laws

regulating all that takes place in it. Thus the world would be like a vortex swelled by new waves from all sides, which it does not itself attract or produce, but which, once within it, are forced to take part in its motion. We have another example of the same process in the relation of our own soul to the bodily organs; the soul evolves from itself resolutions, starting-points for future movements; none of them needs to be determined by and founded on phænomena in the bodily life on which it reacts; but each, at the moment of its passing into that life, subordinates itself to the peculiar laws of the latter, and generates so much or so little motion and force as these permit of—motion too in the direction which they prescribe and in no other. The universal course of things may at every moment have innumerable beginnings whose origin lies outside of it, but can have none not necessarily continued within it. Where such beginnings are to be found we cannot beforehand say with certainty; but if experience convinces us that every event of external Nature is at the same time an effect having its cause in preceding facts, it still remains possible that the cycle of inner mental life does not consist throughout of a rigid mechanism working necessarily, but that along with unlimited freedom of will it also possesses a limited power of absolute commencement.

§ 6. In now bringing to an end this sketch, in which, far from meaning to exhaust the fulness of mental life, we have sought merely to indicate the main outlines of its internal connection, we would fain dwell on one point as the chief result of our considerations—namely, the conviction we have gained of the pervading difference separating the constitution of the inner life from the peculiar course of external Nature. Not only are its elements different from those of Nature,—consciousness, feeling, and will having no resemblance to the states which observation either shows us or compels us to infer in material bodies; but further, the modes of energy, those manifestations of a power to combine the manifold according to relations, with whose value we have become acquainted, have

in them nothing analogous to the reciprocal actions which we can trace going on between the former. However much we may have become used, from the much higher point to which the physical sciences have been cultivated, to look on their fundamental conceptions as universally applicable means of investigation, we must nevertheless acknowledge that we have here entered on a new and wholly different sphere, whose peculiar nature requires us to accustom ourselves to new and special points of view. It would be a mistake to suppose this demand to be made in opposition merely to Materialism, which, denying as it does the independent nature of the mental being, must also in consistency decline the obligation to seek new modes of considering a subject which it does not recognise to be new; the tendency with which we find fault extends far more widely, even among those who, like us, base their views on the independent origin of spirit. We are so used in Nature to indirect effects and to their being explained by the consideration of single constituents, so used to find momentous differences in properties traced back to trifling alterations in the amount and mode of combination of homogeneous elements, that at last we lose all understanding of anything immediate, and unconsciously become possessed by a passion for construing everything, assigning to everything a complicated machinery as the means of its origination and operation. We would then fain assert that even within us there is nothing but an exterior concatenation of events, resembling the communication of movement by which, in the outer world, we see one element come into collision with another; and all else that we find within — consciousness, feeling, and effort—we would be almost tempted to regard as only a kind of accidental reflection in us of that real action, unless indeed we see that there must be something for which and in which this reflection arises. That something there is; every several expression of our consciousness, every stirring of our feelings, every dawning resolution, calls aloud that processes, not to be measured by the standard of physical notions, do indeed take place, with unconquerable and

undeniable reality. So long as we have this experience, Materialism may prolong its existence and celebrate its triumphs within the schools, where so many ideas estranged from life find shelter, but its own professors will belie their false creed in their living action. For they will all continue to love and hate, to hope and fear, to dream and study, and they will in vain seek to persuade us that this varied exercise of mental energies, which even deliberate denial of the supersensible cannot destroy, is a product of their bodily organization, or that the love of truth exhibited by some, the sensitive vanity betrayed by others, has its origin in their cerebral fibres. Among all the errors of the human mind it has always seemed to me the strangest that it could come to doubt its own existence, of which alone it has direct experience, or to take it at second hand as the product of an external Nature which we know only indirectly, only by means of the knowledge of the very mind to which we would fain deny existence.

# BOOK III.

## LIFE.

# CHAPTER I.

## THE CONNECTION BETWEEN BODY AND SOUL.

Different Stages of Apprehension of the World; True and Derivative Standpoints—The Universal Bond between Mind and Matter—Possibility and Inexplicableness of Reciprocal Action between the Homogeneous and the Heterogeneous—How Sensations arise—Guidance of Movements—Influence of the Soul on Bodily Form.

§ 1. THE study of mental life has led us into paths far removed from those along which the explanation of natural phænomena is wont to move. But the greater the peculiarity of psychic life—so great that it requires the most thoughtless familiarity with the forms of the material world to find conceivable the idea that that life originated in the reciprocal action of material substances—the more forcibly do there now press forward the laboriously held back questions in regard to the possibility of the mutual influence which we everywhere find the two so sharply separated spheres of action exercising on one another. How great and weighty is the moulding power over the amount and direction of the intellectual activity exerted in each individual by changes of bodily temperament, everyday experience is sufficient to convince us, without further discussion being needful; that experience, I mean, which still remains after we have made allowance for the thoughtless exaggeration with which many thinkers in our day—as if they had lost all remembrance of self-control and self-denial—assure us that they can find in the energies of mental life nothing else than an exact repetition of physical processes. How much, on the other hand, all higher culture depends on the countless reciprocal actions (all ultimately performed by means of corporeal needs and activities) going on between us and the outer world, and

how powerfully environing Nature, now through slight encouragement, now through capricious refusal, encourages or hinders new developments of our powers: of this every age has furnished convincing examples, yet this dependence has come home most clearly and strongly to the thought of the present age. Whether this puts us on the whole in a better position than former generations, whether this conscious utilizing of the outer world for the advance of the general wellbeing to an extent that can only be called grand, will leave intact a feeling for the noble ends for which all this externality of culture is recommended as means, we must leave it to the future to determine; as yet certainly the hurry of this advance has not been able to stifle the interest in the serious problems ever meeting us anew in regard to the connection in the universe between the spiritual order and the course of Nature, and in miniature as to the mode in which our individual soul is related to its corporeal envelope.

But the more manifold the interests by which our outer life is stirred—and we have to collect ourselves from their tumult ere resuming consideration of these problems—the more diverse are also the cravings after enlightenment and the tacit expectations with which we set about its investigation, and the more numerous the secret germs of misconception threatening later, with increasing force, to perplex our efforts with the contradictory insistence of their claims. It will be hard for any theory to satisfy all these demands of the mind, uncertain of themselves as they so often are; hardest when, without separating the problems, an attempt is made to attain at once all the various ends that can be proposed for any scientific discussion.

For our wishes may be directed either towards the comprehension of phænomena and the entering into their essential meaning, or towards such an accurate acquaintance with their external modes of connection as shall enable us to calculate the effect exercised by each one on every other; but the complete fusion into indivisible unity of the two lines of

our inquiry seems to be forbidden by more than one imperfection of human nature. To go back to the ultimate and deepest elements in the being of things, and to explain everything that perplexes us in phænomena from the supreme laws of action in the universe and from the rational nature of the design that combines particular events into the order of a significant whole: this ideal task we wish neither to depreciate in the eyes of those enthusiastic aspirants who with undamped ardour are ever anew resuming it, nor are we willing to concede to those who turn from it with contempt that it is of less importance than it is. Nevertheless we must acknowledge that this absorption in the highest has seldom been the source of an accurate knowledge of the lower; while it yielded the mind the peculiar satisfaction of secure repose in the universal source of things, it did not at the same time heighten the acute agility with which the intellect (constrained to make itself familiar with the connection of the finite world in order to fulfil the requirements of practical life) has so great an interest in searching out how the individual proceeds from the individual. Where speculative problems come to have also practical ends, where what we aim at is not merely to understand and admire the sequence of events, but to be able to interfere with and direct it, there insight into the ultimate and universal reasons of things falls in value below acquaintance with the immediate rules of the special department in which we may have to act. Now it is easy to pass from the study of the particular to that of the universal and higher that spreads above it, but it is more difficult for us to find the way back from the indefiniteness of the universal into all the complicated details of the concrete which it is our business to master. We do not therefore see this path taken by the sciences to which we as yet owe the most abiding and fruitful extensions of knowledge; they do not start from the points which even subsequent and deliberate reflection would have to allow to be the deepest certain foundations of all reasoning, the inherent and essential truth of

things. They rather leave much undetermined, many open questions, above all the final vindication of the principles which they borrow from the careful analysis of experience as supports for the further advance of their explanations, which are well accredited, though obscure in their origin; ever bent on achieving a secure and extended dominion over the concrete, they may seem to contemplative minds to have less head, but certainly they have better hands and feet, than the upholders of higher views of things, who come towards them from the other side, generally with impracticable claims, always very lavish of requirements, yet themselves yielding nothing We perhaps sometimes succeed, with due attention to all the conditions of a physical event, in finding a formula that completely states the law by which it is regulated; but the equation thus obtained we perhaps cannot solve, and the truth which we possess in it remains a useless locked-up treasure. In such cases science is content to stop short, and, leaving out of its investigation some of the conditions influencing the causation of the phænomenon only slightly, but mainly causing the complication of the formula, to draw from the simplified and now explicable equation inferences that are only proximately correct, but, because they can be obtained, more useful than absolutely correct ones that cannot be had. In like manner, we may perhaps attain to a credible explanation in regard to the highest ends of the universe; but past attempts have made us familiar with the disappointing result of finding that from these sublime problems we can get very little light on the complex course of events by which Nature works them out, and yet the practical inducements to our inquiries lie mostly in this field, the laws governing which do not refuse to disclose themselves to a less ambitious train of thought.

Now to this natural preference for things that are attainable there is in our case added a further consideration, which persuades us to divide the problem lying before us. The further we go from the facts given, in order by a generalizing comparison to find the fundamental axioms that will again

lead us back to them, the more numerous must the possible sources of error become; their number increases with that of the intermediate links of the reasoning by which we connect the data with the ultimate generalization of which we are in search. Hence, by nothing but by a fatal confidence in its own infallibility can science be led so far astray as to attach its knowledge of complex series of phænomena by preference to the fewest possible axioms, or to the slender thread of a single principle, which causes the whole to fall if it gives way. Its labour will be more wisely directed if, instead of raising its structure on the sharp edge of a single fundamental view, and performing the marvellous feat of achieving the greatest possible instability by the most recondite means, it looks out for the broadest basis on which to build, and, first of all, starting modestly, traces the given facts to the proximate grounds of explanation required by their distinctly recognisable peculiarities. It will reserve to itself the right of making these preliminary results matter of a more advanced inquiry; but, remembering how at this elevation sharpness of outline in the subjects of our scrutiny, and withal trustworthiness in our judgment gradually diminish, it will at once allow the possibility, and lessen the mischievousness of error. For it will be open to science to quit again those higher spheres which, with its insufficient means, it believed it had already conquered, and to retreat to that lower but secure vantage-point, whence the view, though not the loftiest possible, still remains that of truth and reality.

Finally, even if we believed we could unerringly tread the path to the highest summit, we would yet have reasons for seldom entering on it. For, in order to reach the highest point, we would be compelled to renounce many of those ways of looking at things on whose application depend all clearness and vividness in our daily intercourse with the world. Now, as surely as we must resolutely carry out this renunciation of the correctness of the illusion with which we have become so familiar, so surely must we, on our

return from the most elevated point of view to the level of the surrounding finite world, resume once more the language of illusion. We gain clearness and insight not by giving up in every case the wonted forms of human conception, to put in their stead the language of a higher truth, but by *once for all* going back to the source of things, and thence making ourselves acquainted with the limits within which we may without error apply these wonted forms of conception as handy instruments of knowledge, as proximate and manageable abbreviations of the true statement. To carry directly into special and single investigations the highest principles—those of all ultimate determination—can lead to no advantage, only to the mischief of a disquieting lack of clearness; no one can at one moment keep in view the whole series of further conditions, and yet it is only by means of these that the highest principles can be brought to bear on the case in point. Though astronomy has established the fact that the sun stands still and the earth moves, yet in our daily speech we avoid the absurdity of making a cumbrous statement of the real state of things, instead of speaking of the sun's rising and setting; though the greater or less power of bodies to resume their altered form depends on the forces by which the infinitesimal particles act on each other, we do not on every occasion pause to calculate these, but rejoice to possess in the notion of elasticity and in its laws as discovered by experience, means at hand for a more convenient mode of expression; lastly, though every change by which our food is made more tempting to the appetite undoubtedly depends on universal chemical laws, we do not wait until these are discovered,—nay, even then gastronomy will probably prefer, as guarantees of success, the maxims of experience to the precepts of science. The scant inclination hitherto shown by the higher inquirers to convert the treasure of their perhaps inestimable results into the current small coin of thoughts that can be retained in memory, and useful abbreviations, has not only cut them off from general sympathy, but contributed to their own want of clearness. It is no perfect

state of society in which the decision of every trifling question, directions for the management of the most petty affairs, must be given by the supreme tribunal; and as there a smoothly working mechanism of administration is subordinated to the powers of legislation and government, so too science needs a gradation of points of view, and, while it must be possible to refer unsatisfactory decisions from the lower to the higher for farther explanation, seekers after law must not in every case be compelled to travel the long road that leads to the ultimate ground of things.

§ 2. No question is to be more confidently expected than the general one concerning the bond between body and soul; it is commonly the first put in this branch of inquiry, and to it from later stages men return, as with a long-drawn breath, when, dissatisfied with all more restricted modes of expression, they think to sum up in it the whole difficulty of the subject. And yet hardly anything can be more prejudicial than the misunderstanding involved in this conception of the question. For what else is a bond than a means of externally connecting two things which do not of themselves cohere, and, from having no inherent relation to one another, are not disposed to exert any reciprocal action? And, supposing we had been able to discover this universal—nay, this single—bond between body and soul, what craving would we have really satisfied? None of the numberless reactions which we see going on between the two would be in form and character one whit more intelligible with this external collocation than without it; nay, even the possibility of any mutual influence we should still have to try and understand from the nature of the things bound, by a fresh course of inquiry, since we should fail to do so from the indefinite idea of the bond. Besides, by what new means of cohesion are the constituents of every bond themselves held together, so that they are able to unite other things? However far into detail we may carry the resource of a constantly renewed cement, we shall in the end have to confess that the ultimate

elements are not rendered capable of reciprocal action by any pre-existing bond, but that the reciprocal action is itself what holds them together, and fits them to bind together other things, the mutual affinities of which are too weak to unite them in the face of opposing obstacles.

But, nevertheless, does not the demand to exhibit this common bond mean the justifiable requirement of a condition that must first be there before the reciprocal action can be realized? Does not the vessel containing two chemical substances act as a bond to force them into mutual contact, and thereby give them an opportunity of exerting the influences, the precise nature and amount of which are of course determined by their own mutual affinities? Certainly the elements whose reciprocal relations have not sufficient force to make them seek one another, need a guiding hand to bring them together; but after they are together, they are kept so neither by the hand nor by the vessel, but by their own reciprocal action, and often with a force greater than could have been imparted by any external bond. And so—to drop the simile—it is a question deserving attention in what manner body and soul were united in the first formation of life; but we cannot seek a permanent bond between body and soul different from the vital reciprocal action of both, in the fully-formed and self-maintaining life—the explanation of which is of necessity our primary object, as only from the knowledge of its constitution can we form conjectures as to its origin. This would be an idea alike superfluous and contemptible — as superfluous as it would be to insist on regarding the bond of friendship between two individuals as a particular and visible tie, while it is the friendship itself that forms the bond; contemptible, because this would indeed be to link soul and body together in wholly external fashion, without regard to the fact that not by one formless bond, but by a fine-spun tissue of numberless relations, are both most admirably fitted to work on each other's states and needs. For each action and re-action passing between them is a fibre of that which forms their

mutual bond, and the scorn so often cast on the view of human nature as composed of soul and body, on account of its deriving our being from the addition of two constituent parts, is a mere mistaken transference of this miserable idea of one universal bond to the unlimited variety of organized reciprocal action. Let us then set aside this vain theory, alike as in its coarser form it seeks some material cement, perhaps of the nature of an ethereal matter, that may make body and soul adhere, and as in more refined, yet not more trustworthy shape, it makes the soul itself the intermediate link between body and mind, and thereby but adds to the number of elements which it would fain join into one.

§ 3. But are not these reciprocal actions themselves most incomprehensible, or is there any means of forming an idea how impressions pass from the body to the soul and are sent back from the latter? In this question also lurks much misunderstanding, in fact it is but a new form of expression for the false idea underlying the last. This reciprocal action is certainly inexplicable, but it is not among those processes whose reality we may doubt on account of their inexplicability, because they ought to be explained by laws known to us; on the contrary, it is itself the notion of that simple and primitive procedure to which all explanation of composite occurrences takes us back, and which now, by a confusion of ideas, we would fain rest upon its own results. Or do we in that question seek something other than a minute and vivid description of the arms which the soul aggressively extends into the body, of the material organs by which the body conveys to it impressions made upon itself, in short, of the whole machinery by which—here as in other cases of reciprocal action which we think we know more accurately—the communication of influence from the one side to the other takes place?

On impartial self-scrutiny, we cannot deny that in our speculations as to the universe, curiosity very often usurps the place of genuine desire of knowledge, and that the ample satisfaction afforded to the one by the entertaining variety of

a succession of images but too often makes us forget how wholly unquenched is the other. We are apt to estimate the thoroughness of our insight according to the number of details which in any investigation we have mastered; the more internal mechanism, the more intricacy our analyzing study finds in any object, the more completely do we believe ourselves to understand its nature and manner of working. We do not reflect that this multitude of connected parts but increases the extent of that which we have to explain, and that every new link shown to intervene between the first cause and the last effect, instead of solving, only renders more complicated the enigma, how reciprocal action is possible between different elements. If we have studied the details of a machine, whose mode of working was to us at first wholly inexplicable, and seen where each wheel works into the other, and transfers its own movements in fixed directions to other parts, we think we have solved all problems. And yet we have not gained the slightest knowledge of the manner or of the internal processes by which the working forces here produce their result; we have merely analyzed the great and hidden mystery of the whole machine into those separate mysteries of the simple operations of Nature, in respect of which we have once for all made up our minds to consider them clear, though all closer scrutiny shows them to be wrapped in the darkness of complete incomprehensibility.

For all mechanical working presupposes the transferability of motion and the solid construction and connection of the masses from one to another of which motion is to be conveyed. Now, which of these two conditions do we understand? Can we state what takes place when motion is transferred, and what is the commencement of the process by which the impelling body sets the other in motion by impact or pressure, and communicates to it a portion of its own velocity? Or is it clear to us how and why the single parts of a driving-wheel so adhere together that the blow given to one compels the others to move along with it, and to produce the circular rotation round an axis which is again applied to bring about

new and useful results? We shall perhaps refer to the operation of attractive forces by which particles are bound into a whole. But wherein consists this action of reciprocal attraction, and how is it brought about? How do these forces make the first advance beyond the limits of the body to which they belong, to exert over another and a foreign body such a power that it must yield to their attraction? We are not afraid of hearing once more of a bond that holds together sun and planets; the question that would immediately arise, how this bond is supposed to be now shortened, now lengthened, will be evaded by the frank confession that we are here in presence of one of the simple actions, by compounding which we may indeed elucidate the character of complex effects, but which themselves are made no more intelligible than before by the supposition of additional accessory mechanism. Even as we know what we mean when we say that anything is, but never shall thoroughly learn how existence is brought about, so we know what we mean when we speak of working, but never shall be able to say how working comes to pass. Science need not hope to do more than accurately to search out the conditions under which this uncomprehended and incomprehensible working originates; and however great and important may be its achievements in the disentangling and analyzing of complicated connections, when it has reached the simple reciprocal actions, to a combination of which it reduces every manifold, it will invariably have to confess that the proper act of working in all conceivable cases of its occurrence remains to us alike inexplicable.

But this will be allowed only to be again forgotten as soon as the special problem of the reciprocal action between body and soul is proposed. Though it needs but little study of physical science to teach us, that in fact all forms of action and reaction between substance and substance are equally obscure, it has yet become a habit hardly to be overcome to look upon the mutual influence of body and soul as a particular and exceptional case, in which unfortunately, and contrary to our expectations, that will not become clear

which in every example of merely physical action is perfectly intelligible. How little this latter is the case, we have already pointed out; nevertheless the complaint will still go on, for in the case in question the impression of obscurity is heightened by the entire dissimilarity of the members that have to act on one another. We have on the one side the material constituents of the body, on the other the immaterial nature of the soul. How is it possible that the impact and pressure of masses, or their chemical attraction, apparently the only means of working which they have, can make any impression on the soul, which, like an unsubstantial shadow, offers them no point of contact? How, on the other hand, can the soul's command, a command without any power of propulsion for its realization, move masses, that would only obey a palpable impetus? We can only conceive homogeneous things acting on each other. But on closer examination, it appears that this demand for homogeneity also springs from the error of supposing that propulsion, pressure, attraction, and repulsion or chemical affinity, are explaining conditions of reciprocal action, instead of mere forms in which in an inexplicable manner the action takes place. The complete homogeneity of two balls does not in itself make the communication of their motion in impact more intelligible; it only has for our perception the advantage that we can with equal distinctness image to ourselves the two reciprocally acting elements, and see the motion in space by which they approach one another; *i.e.*, it enables us to form an image of what is there before any reciprocal action takes place, but it does not throw any light on how it comes to take place. Now, in the present case, of course, we are wholly denied the advantage of being able to form such an image. We should be consoled if we could see the soul facing matter, ready for the leap by which it is to make its inroad on the latter's domain, or extending itself so as to receive the latter's blow; we would then have obtained the image which we so much desire, but we would not be one whit nearer comprehen-

sion of the process. Perhaps the subsequent course of our investigation will bring us to a point of view at which the heterogeneity of the immaterial soul and of palpable matter will have disappeared; but even should it not disappear, it does not—strictly speaking—magnify the difficulty. For the act of working, inasmuch as it is not in itself palpable to the senses, can require no other homogeneity of the reciprocally acting members than such as is amply given in the fact that the soul, as a real substance capable of acting and being acted on, stands over against the material atoms, which on their side we regard as positive centres of exeunt and ineunt actions. Any demand for still closer similarity would only proceed from the error of looking on the act of working as a transference of perfected states from one element to another, which must insist on the similarity or homogeneity of both, that the exeunt state may at its entrance into a fresh element find a home alike in size and form to that which it has quitted.

Lastly, we must add, there are not reciprocal actions in general, even as there was no connection in general. Every action is particular and fixed in form and amount, and we have no reason to suppose that the infinite variety of effects proceeds exclusively from different modes of combining and utilizing one and the same kind of working. If this is so, what light would be thrown on phænomena by our having somehow explained the general possibility of reciprocal action between body and soul, if we yet could not thence draw the reason why, under different circumstances, sometimes one, sometimes another, particular kind of action must take place between the two? It must therefore be idle, in the interest of science, to pursue further this very abstract inquiry. Science has to acknowledge and assume that the manner in which working is in general possible is equally inconceivable in all cases and in every department of phænomena; and that the true and fruitful field of investigation lies in searching under what definite and definable conditions equally definite and definable actions universally and regularly occur. While

giving up the attempt to discover how and by what means effects are produced by their causes, it will direct its attention to the other and more useful question—what effects proceed from what causes. Leaving it to the universal and regular necessity of Nature, whose requirements meet with no resistance needing special means for its removal, to take care of the bringing about of phænomena, it will find in this problem an equally rich and fruitful subject of inquiry, such as astronomy possesses in the notion of universal attraction, of whose effectuation it knows nothing, but from which, by observation of the manifold circumstances under which its incomprehensible working may take place, it is able to explain a multitude of most complex phænomena.

This theory is rightly designated by the name of *Occasionalism*, but it is wrong to give this name as one of reproach. It is thus that we designate a doctrine on which all that we naturally regard as the productive cause of an effect is merely the occasion on which — how we know not — this effect appears. Now we would fain bring home the thought that our knowledge of Nature is at best but an accurate study of the occasions on which — by means of a mechanism whose inner moving springs we do not understand—phænomena are manifested, each attached by universal laws to an occasion belonging exclusively to itself, and each with an equally constant regularity changing with a change in that occasion. Our position is not one outside the sphere of physical conceptions, when we regard the reciprocal action between soul and body from this point of view—we merely consistently extend to this new relation the usages of physical science. Nay, the clear apprehension that even our knowledge concerning physical events is not essentially more profound, will allow us again to apply without fear of error those intuitions of daily experience whose absence in this inquiry we before regretted.

Why, indeed, should we shun speaking of the impact and pressure of masses on the soul, of their mutual attraction and repulsion, if these terms, though explaining nothing, yet serve

to convey our conceptions of the relation in question in a short, convenient, and easily apprehended form? What we primarily in daily life understand by these words, is the external forms assumed by the reciprocal working of large and compound bodies. Here the bodies seem to us to work *through* propulsion, *through* pressure. But if we go back to the simple atoms forming the structure of these bodies, we meet, as it were inside the sphere of physical intuitions, with the idea of great intervals, by which, even in the densest mass, the infinitesimal particles are separated, and whose amount can, indeed, by the application of various forces be diminished, but never be annihilated to such an extent that the atoms should touch one another. In that case the impact of two atoms would have to be differently conceived. Before contact took place, the approach of the one would awaken or increase in the other a repelling force, and the effect that would follow, and that formerly appeared to us to proceed from the material rebound of the collision, as a means of its accomplishment, would, in fact, result from a mutual influence of the elements, for whose realization we are utterly unable to point to any farther machinery. The phænomenon of collision would be merely the result of an internal direct understanding of things among themselves, in virtue of which they make their states act on one another according to universal laws. Why then should not an atom of the nervous system equally be able to exert impact and pressure on the soul, or the soul on it, seeing that closer scrutiny discovers ordinary impact and pressure to be not a means to the effect, but only the perceptible form; of a far more subtle process between the elements?

§ 4. But without attaching too much importance to the recovery of these terms, we will rather make clear the first general effect which our view has on the treatment of the several questions. We have just spoken of the strange prejudice according to which the process of working is the transference of the complete states of one element to another. How little, on such an assumption, the variety

of results can be explained which are produced by one stimulus in different objects on which it acts, we need say no more to prove; if its action consisted merely in the radiation of a perfected state, received as such by the objects, the response to it could also be nothing else than an echo of absolutely identical sound in as many voices as there were objects susceptible to the impression. For supposing that from the acting point but one motion extends, corresponding to it and its condition, the result which that will produce must evidently be different, according to the difference of the beings whom it reaches. The view to which we have resolved to adhere does not expose us to this error, on the contrary, it leads us directly to regard every external influence that passes from any one element to any other as an exciting stimulus, that does not transfer to the second an already existing and foreign state, but only awakens in it what already existed potentially in its own nature. The wooden notes of the musical instrument do not themselves contain the tones which when struck they draw forth from the chords, it is only the tension of the latter that by means of this propulsion can pass into tone-producing vibrations. In like manner all bodily impressions are for the soul but strokes, drawing forth from its own nature the internal phænomena of sensation, that never can be communicated to it from without. For even if it were not the motion of the notes, but a veritable wave of sound, that brought the tone from the chord, yet that could only reproduce the tone by its own tension, no matter whether what set it in vibration were a process similar or dissimilar to that wave. The case would not be different if we chose anyhow to look on sensation as a state already existing in the nerves; it would still have to originate afresh in the soul through some excitation conveyed to it by the sensory nerve, and it could never arise through external impressions, were its own nature not in itself capable of evolving this peculiar form of internal action. Accordingly, every theory that takes for granted that what is to be manifested in the soul already exists outside of it, is yet forced to

come back to this conception, and to view the external as merely an occasion, and the inner event, on the other hand, as proceeding from the nature of that in which it takes place. The necessity of this fresh origination can as little be avoided by this assumption, as that of reproductive spontaneous activity in any mind, if the knowledge of a truth or the glow of a feeling is to pass from another to it. Hence, however various be the modes in which the influences of the corporeal life determine the development of the mental, they yet convey neither consciousness in general nor any particular sensation or thought to the soul ready-made, as the already gained result of bodily processes; these influences are all simply signals for the soul to evolve definite internal states from its own essential nature, and according to unalterable laws; but the delicate organization that makes it possible for the body to transmit these signals in a definite grouping and sequence, answering to the actual relations of things, also guides the soul to an alternation and association of its sensations, in which it attains all the truth possible through the mere apprehension of given facts without reflective elaboration of their internal connection.

Now, as the whole world of sensation is an internal development, not brought in from without, but merely awakened in the unity of the thinking being by the multitude of extraneous impressions, so also are the various corporeal movements taking place at the bidding of the soul an evolution of effective relations, grounded in the bodily organization, called forth indeed by the soul's internal states, but not transferred by it ready-made to the organs of the body. Of the external stimuli that produce a sensation, our immediate consciousness knows neither their nature nor the means by which the impression on us is effected; only science after efforts long fruitless has made fully clear the peculiarities of the waves of light and sound to which we owe tones and colours. Yet even here, of the processes initiated in our nervous system by these stimuli, which are the immediate causes of our sensation, we know nothing,

and hitherto not even physiological investigation has made us acquainted with them; nothing comes into our consciousness but the close of all these processes,—the sensation of tone or colour itself. Little does the soul understand the history of the evolution of its ideas; it does not create them with a free and elective energy, conscious of what it does, but under the constraint of a universal and binding law of Nature it is compelled, as a being constituted as it is, to respond to one impression with this, to another with that particular sensation. Just as little does the soul know and understand of the reality, the situation, the connection, and the efficiency of the organs by means of which it executes its movements; it soon, indeed, becomes familiar with the external form of the moveable members, but not immediately, and then only with the aid of science, and after all imperfectly, does it learn the internal arrangement of the muscles and nerves by which they are moved. Not this imperfect knowledge qualifies it for action; it does not itself, by a review of the available means, by choice, and by special direction, select the muscles needful for the execution of a movement. Even had it found these it would yet stand helpless, not knowing how to convey to these organs the sufficient amount of impetus; science itself is not yet free from doubt as to what form of process it is by which the motor nerve communicates its stimulation to the muscles. Here, too, the soul must confide in that connection which throughout the course of Nature has bound state to state according to unalterable laws, and which without its co-operation links even the internal energies of which its nature is capable with bodily changes. As soon as the image of a definite movement arises in our consciousness, combined with the wish that it should take place, we have the internal state to which this all-pervading reign of natural law has attached as a necessary result the appearance of that definite movement, and when this preliminary condition of its occurrence is present, it takes place forthwith, without our co-operation, without our help, even without any

insight on our part into the action of the mechanism which the course of Nature has put at our disposal.

It is not always, either, that movements proceed from our will; they take place as the expression of passionate excitement in our features and in all parts of our bodies, frequently without, nay against volition; they take place in forms whose meaning or use for the expression or relief of this mental excitement we do not understand; we weep and laugh without knowing why the one should necessarily be an expression of joy, the other of grief; the fluctuation of our emotions is betrayed in a thousand variations of our breathing, and we cannot explain either by what means or to what end these corporeal agitations associate themselves with those which we feel within. Evidently in this way many psychic states, not only voluntary resolutions but also non-voluntary feelings and ideas, have been made by the all-embracing course of Nature determining starting-points—starting-points which the soul, at least in part, spontaneously evolves from its own inner being, but which, after they have been evolved, call forth their correspondent movement with the blind certainty of mechanism, without our ordering and guiding co-operation, nay, without our knowledge of the possibility of such a process.

We deceive ourselves, therefore, when with a favourite simile we compare the body to a ship—the soul to its steersman. For the latter knows, or at least may know, the construction of that which he directs; he sees before him the way along which he has to guide it, and, each moment comparing the direction in which it is moving with the path which it ought to take, he can not only calculate the amount of alteration required, but sees before him the mechanical handles of the rudder with which to effect it, and his own arms that can turn the handles. Far from possessing this comparatively perfect insight into the working of the machine, the soul, on the contrary, is like a subordinate workman, who knows indeed how to turn one end of a winch or to put on coals, but understands nothing whatever of the

internal transference of movements by means of which a completed product is turned out at the other end of the machinery. Or—to keep to the other simile—the relation between soul and body resembles not that between steersman and ship, but of course that between the steersman's soul and his body; the steersman discharges his task only because he has at his disposal as means for the intelligible motions which he has to communicate to his instrument, the uncomprehended mobility of his own arms. Thus the simile is superficially illusory, because it is only tacitly that it contains that which is uncomprehended in the comparison.

Few will be inclined unreservedly to adopt this view. We have become too much accustomed to look on the soul as an arbitrarily ruling and swaying power, whose command the body has to obey. We think we are aware, in the swing imparted to the arm, of the direct flowing of our will into the organs as it sets them in motion; and is this impulse not sufficient? Must a universal necessity of Nature make a present to the will of the submission of the members? Well, even so it is: in the swing of the arm we are aware of anything rather than of the transference of energy; what we feel is nothing else than the change which, in consequence of a previous stimulation, the muscles undergo during contraction, and of which a perception, resembling fatigue and passing into it, returns to our consciousness. Our view does not threaten the living energy of the will, or even the fact of its power over the limbs; but it establishes beyond doubt that the will is nothing else than living volition, and is not also accomplishment; as little as our will directly extends beyond the limits of our body and by its own efficiency produces changes in the distant outer world, so little does it in itself extend to more in our personality than the soul; if, nevertheless, it exerts a power over the body, which Nature has associated with it as its instrument, it is because the same necessity of Nature has ordained that its behests, in themselves powerless, be followed by an obedience of the masses under the regulation of law.

Thus—to return to whence we started—the variety of our movements is a development of the purposive relations of our corporeal organization, not devised, not watched in detail and set to work by the soul, but only blindly initiated by it. The soul may indeed, inasmuch as it originates in itself a series of inner states such as Nature has made the starting-points of movements, also call forth a series of the latter in an order and purposive grouping for which in itself the arrangement of the organism contains no sufficient ground; and yet its dominion over the body does not in this respect exceed an infinitely varied utilization and complication of elementary movements, not one of which can it devise or comprehend. It purposively combines purposive elements, as language makes of its vowels and consonants a countless multitude of words and euphonies, but as in the case of language and its sounds, so the soul finds ready to its hand the simple purposive movements, easily initiated by an inner state which it can call up, but, as otherwise concerns their origination and performance, independent of it and to it wholly dark.

§ 5. Already, when we examined the theories in regard to the ground of the purposive formation of the living body which have successively been put forward, we mentioned that view on which its harmony is only referable to the active co-operation of an intellectual being. We then saw that this theory, seeking by the aid of the soul to withdraw the development of the body from the sphere of mechanical procedure, failed of its end. For that which alone makes the soul more than blind mechanism—rational reflection, and the voluntary choice of means and ends—could not, by all we learn from experience, be viewed as co-operating in the gradual building up of the corporeal form. The forms of the body are finally fixed or prepared at a period prior to the unfolding of these mental activities, the soul, therefore, could only so far itself contribute to the establishment of the bodily life, as, along with other elements, it was woven into the tissue of mechanical actions, from whose harmonious

energy came forth with blind necessity the predetermined form of the organism.

This needful rejection of a false conception of the mode in which the soul takes part in the construction of the body, need not prevent us from holding such participation to be in itself great and important. The soul, by reason of its more significant nature, must always have a place of vantage among the other elements, and even although its co-operation were confined to necessary reactions, to which it is at every moment constrained by its relations to the other elements, yet the very depth of its own nature might qualify it for thus sending forth from itself influences, whose value for the progress of the organization should exceed that of all other constituents. Now, when we see how even within the limits of our observation the impulse of the will serves to contract the muscular fibres, how thus a change in psychic states is evidently followed by a change in the local relations of infinitesimal particles of the body, we cannot in general question the possibility that at an earlier period of growth, when the elements of the body had not yet assumed the fixed structure and position which they have in its maturity, the inner workings of the soul may exert a considerable influence on the still undefined relative situation of the particles, and consequently on the development of the form. Of course the starting-point of this influence cannot be the conscious representation of the motion of parts of whose very existence and uses the soul at this stage can have learned nothing; but as even in the adult we see emotions involuntarily exert their moulding power on particular parts, and in mimetic movements alter the local relations of these already fixed elements, so doubtless a similar influence on the primary establishment of particular relations of form may be exercised, in conformity with their qualitative nature, by the inchoate emotions, still unconnected with any definite reactions, that agitate the undeveloped soul of the growing organism.

But, after all, we must confess that all this is merely

possible, or at any rate, if even in our opinion the soul must to some extent take part in the reciprocal actions whence its body originates, we are yet not enabled by the analogies of experience to estimate the actual extent of such participation. In the full-grown body the power of the soul over the moulding of the form is very slight, and, even so far as it extends, seems to be exerted only indirectly, by alterations in some particular groups of muscles or operations — such as the heart-beat, respiration, and digestion — over which emotional fluctuation or the habitual practice of certain movements has a more or less immediate influence. The workings of the soul thus extend mostly over the whole body, and affect rather its bearing than its form. While we willingly allow that the ennoblement of the mental life in the end ennobles also the bodily form, that its degradation tends to the deterioration of the latter, we are inclined to limit to this the influence of the soul. That influence does, in a certain measure, develop beauty and ugliness of form by slight alterations in the stamp of already fixed proportions; but that to a preponderant extent the primary formation of the organism is due to the soul's moulding power, is a poetic imagination cherished by many who overlook the numerous examples of deficient agreement between mental dispositions and corporeal structure.

## CHAPTER II.

### OF THE SEAT OF THE SOUL.

Meaning of the Question—Limited Sphere of the Soul's Operation—Structure of the Brain—The Way in which Movements arise—Conditions of Space Perception—Significance of the Unbranched Nerve-Fibres—Omnipresence of the Soul in the Body.

§ 1. IN the notion of the soul with which we have hitherto been dealing — that of an indivisible being whose nature is capable of developing ideas, feelings, and efforts—there is nothing that suggests space and space-relations. But the counter-actions which the soul is found to exert on the mass of the body naturally give rise to the desire to be able to represent not merely in general the possibility and nature of this mutual influence, but also the respective position of both parties to the relation, with that local distinctness which everywhere attends our observation of Nature, not indeed explaining things themselves, but unquestionably giving clearness to our ideas about them. We shall be questioned as to the *seat of the soul*.

The meaning of the question is simple enough; if we leave it an open question whether it is possible to ascribe to the indivisible being of any real existence any kind of extension in space in the sense in which we believe it to be attributable to material substances, there need be no divergence of opinion as to the possibility of even unextended existence having a position in space. Its place will be at the point whither all impressions from without must be transmitted, and whence in return come the impulses by which it sets in motion directly its own environment, indirectly through that the more extended world. This point in space is the place at which we must penetrate the spaceless realm of genuine

existence, in order to find passive and active being; and in this sense every theory must search out a seat for the soul, even if it deny to it the extension of a space-occupying form, in addition to place.

Our notions, however, of the reciprocal action of things on one another leave several possibilities with respect to appearance in space. We can conceive a being *not merely in some relation to all the rest of the universe, but to every part of it in an equally close and gradationless relation.* It would, in such case, not merely act and be acted on directly by some few things, as a means of indirectly controlling others, but stand with all at once in that vital relation which involves immediate action by the states of the one on those of the other. If situations and places are the expression of the closeness or looseness of these internal connections, this being would not have a limited seat in space, but, as internally alike near to all parts of the universe, would seem externally to be omnipresent. So we conceive the existence of God. He, the Creator of the whole, is alike nigh to all—even to apparently forsaken—points of the creation; His power has no way to travel in order to reach the point at which it is to act, and the states of things do not need to seek Him in order to commit themselves to His Providence, by which they are everywhere alike closely encompassed. Yet we do not so conceive this omnipresence as to attribute to the Divine Being the infinite extent itself that is under His sway; rightly avoiding such material conceptions, we think of Him as the immaterial, formless Energy, to which this infinity is nothing, neither a barrier to its immediate presence, nor an attribute adding anything to the fulness of its being.

Physical science has accustomed us to a *second* conceivable case — that of *beings that reciprocate action directly with all others similar to themselves but in different degrees of relationship with different individuals.* Thus the attractive force of every gravitating particle extends directly to every other even to an infinite distance; but the amount of the

force diminishes with increasing distance. Those molecular forces, too, the effect of which becomes imperceptible at the smallest sensible interval between the reciprocally acting elements, we yet suppose to extend *ad infinitum* with rapidly accelerated diminution; at even the most trifling distance its amount may approach the vanishing-point, but there can be no fixed distance at which it is absolutely annihilated. Various conceptions may be formed of the relation to space of things thus acting. They may be said to be omnipresent in space, for in fact their efficiency needs no continuous medium in order to reach any point in space. In consideration of the gradational character of their efficacy, they may equally well have ascribed to them a circumscribed locality of punctual magnitude. They will then seem *to be* in the place at whose circumference they exhibit their maximum force; on the other hand, they will seem only to *control* with lessening power the rest of infinite space, without existing in it. This twofold possibility shows that only an illusory interest attaches to the question, whether in the case of such action the extension of that which acts is finite or infinite; magnitude in space forms no part of its attributes. We did not conceive of God as equal in magnitude to the universe which He governs; so also we conceive these working substances as neither infinitely small, like the geometrical points whence their energy proceeds, nor infinitely great, like the worlds over which it extends. They themselves are what they are—supersensible beings; nothing more can be said about them than that, in accordance with the part which they have in the whole of the universe, within the region of phænomena in space, their force must seem to proceed from a fixed place, and at a constant rate of diminution to arrive at distant places.

A *third* conjecture may be hazarded, according to which *a thing would act directly and unvaryingly over a fixed extent of space, but be only indirectly in reciprocal action with all that lay beyond its limits.* This conjecture would however have to avoid a false assumption. There is no conceivable

ground for supposing that in *empty* space the force of a being should extend only over a globular space of fixed diameter, and beyond that limit should cease. If any one distance has above another the advantage of possessing this limiting power, this can be due only to the fact that space is filled as far as it goes, and empty beyond. Besides, a force must not be conceived as something always proceeding from the working element, even when there is no second element on which it can act; it comes into being at every moment of the action between the two elements, whose qualitative nature renders it inevitable that they shall act the one upon the other. Hence it will everywhere extend so far in space as it meets with elements whose internal affinities impose on them this necessity of working, and hence we can never say that, on account of too great distance in space, an element escapes from the sway of a force which otherwise, in virtue of its nature, it would be bound to obey. In other words, there can be no force whose efficacy originally extends over a finite region in space, and further also over all that this contains; but in an element such a force is quite conceivable as is limited to a certain species or certain circle of other elements, and indifferently passes by all those which do not belong to that species or that circle.

I would once more emphatically repeat an assertion underlying all that has gone before: it is absolutely necessary to convert the oft-heard proposition, *A thing acts only where it is*, into the other, *It is where it acts*. It is a downright error to believe that there is any meaning in saying that a thing is in a place, and consequently acquires capability for a particular direction and extension of its action. Even the most ordinary everyday reflection fixes the situation of a thing only by reference to its actions; a body is there, whence come the rays of light which it sends out in various directions; it is there, where it meets with resisting pressure the hand that seeks to move it; lastly, it is there, where it acts on other bodies, attracting, holding, or repelling them. Further, this is not to be understood as if all these actions were only

subjective grounds leading us to knowledge of the body's existence in its place, while that existence itself has a significance independent of the effects that make it perceptible. On the contrary, we can neither say nor understand why a thing that does not act should be said with any better reason to exist in one place rather than in any other, or how the state of a thing simply *existing* without any efficacy in a particular place could be distinguished from that in which it would be, did it occupy any other place.

This being taken for granted, we are in a position to state the conceptions which we can form of the alleged *third* case. If a being is where it acts, but if in its acting it is determined exclusively by the internal relations existing between it and other elements, and not by empty space with its places and distances, we may further add: it is *wherever* it acts, and its place is large or small, continuous or discontinuous, according to the distribution in space of those other elements with which it stands in this direct reciprocation of action. Whatever be the place of an acting being, and whatever its form, it is never a *property* of the being itself; the latter does not become large or small, as the place increases or diminishes, nor extended, because it has extension, nor multiple and divisible, if it is severed into a plurality. Let us, in order to make the subject more distinct, suppose that an active element $a$ has reciprocal action with all the elements of the species $b$, and that this reciprocal action is independent of the distances between the individuals $b$ in the world, then $a$ would have as many places in space as there are elements $b$ dispersed throughout infinite space; $a$ would exist as much in any one of these places as in any other, without the unity and indivisibility of its being suffering on this account any prejudice. This conception is none the less possible that we are not aware of any case of it in the actual order of the universe. If we further suppose that $a$ directly reciprocates action with a certain number of elements $b$, homogeneous or heterogeneous, the place of $a$ will always be where one

of these elements is. Let us imagine them all assembled on the surface of a ball, and the metaphysical place of *a* will be this curved surface, in each one of its points that is occupied by one of the real elements *b*. We would not strictly be entitled to hold, but we might indulge ourselves in the imagination, that *a* is in the centre of the globe and thence exerts a force whose sphere of action is fixed and limited by the finite diameter of the globe; by this form of statement we would set more clearly before ourselves the permanent indivisible unity of *a*, but would not make that more certain than it would in any case be. Lastly, we might imagine that the elements *b*, with which *a* directly reciprocates action, are dispersed throughout space, and that in the intervals between them are situated other elements of the species *c*, to which *a*'s nature brings it into no effective relation; then *a* would have a discontinuous place in space embracing many points, or would simultaneously exist at many points; and now, on account of points being interpolated at which *a* is not, it would be more difficult for our imagination to grasp the conception of *a*'s unity, while yet in the real relations of the things no greater difficulty would be involved.

§ 2. If now we apply these general considerations to the particular case in hand, we find that only the happy believers in the revelations of clairvoyantes insist on extending the direct and perceptible sphere of the soul's power to infinity; the experience of waking life has never doubted that in the main the contour of the body marks the limits within which the soul itself is active and is acted on by external states. We are aware only of what affects the body, we move it alone, through its instrumentality the outer world acts on us, and we act on it. But oft-repeated observations have taught us just as certainly that the scene of the direct reciprocal action of soul and body is not co-extensive with the body. The soul has no concern with any corporeal state that cannot excite some part of the nervous system, the body no concern with any mental movement, which is prevented from passing out of that system into the obedient organs of the limbs.

Thus the great mass of the body appears—in contrast to the soul's proper seat, the nervous tissues—as a department of the outer world which it sways only indirectly. Even here in the nervous system, moreover, observation shows a distinction between conducting parts, through which the transmission backwards and forwards of stimulation takes place, and other more essential parts in which the reciprocal action itself is accomplished. If a sensory nerve is severed by a simple cut in its passage to the brain, the impressions still received from without by its extremity at the surface of the body, are lost to the soul; if by a similar cut a motor nerve is severed, the volitional influence of the soul no longer passes into the limbs, with whose muscles the severed nerve communicated. The soul therefore does not reciprocate action directly with every part of the nervous system; it can be only the excitations of the central organs by which it is really moved, and which, on the other hand, it calls forth by its own power; the whole system of nervous transmission is but a means of conveying to this smaller sphere of veritable action and reaction external impressions, which in themselves cannot reach the soul, and of transmitting its volitions, in themselves powerless, to the limbs by which they are to be carried out. The further course of such observations, as made artificially and in cases of disease, still farther restricts the mental area; it shows that a severance of brain from spine destroys the susceptibility of consciousness for the impressions received by the latter organ, and in like manner the soul's control over the limbs to which it sends out nerves.

No doubt decapitated trunks, especially of cold-blooded animals, still in obedience to external stimulation execute movements, the purposive harmony of which many have thought cannot depend on merely physical causes. But even these movements take place only so long as the spine and its connection with the limbs to be moved remain uninjured; at most, therefore, they would prove that the soul's immediate influence, or its seat, is not limited to the brain, but further extends to this other part of the central organs. But it is an

unquestionable fact that by interruption of the communication between spine and brain the movements of the parts dependent exclusively on the former are withdrawn not only from the dominion of will but from consciousness; on the other hand, it is not certain that the movements of decapitated trunks depend directly—or if indirectly, in what manner they depend—on psychic conditions. Let us therefore defer till later the consideration of these phænomena, and for the present hold by the propositions that without independent evidence impressions which our consciousness does *not* receive are not to be regarded as psychic states, actions are not to be regarded as psychic activities which we neither will nor are aware of while they are going on. This is, of course, to assume that the seat of the soul is limited to the brain. Here finally we have grounds for discriminating different parts with different psychic values; but the greater, nay insurmountable, difficulties of the investigation make it here no longer possible accurately to discriminate between the peculiar organs of the soul and the surrounding apparatus of afferent and efferent organs. As the result of these reflections, we find that the first of the above indicated conceptions is not applicable to the relation between soul and body: the soul is not omnipresent in its body, as we conceive God to be in the universe; it is in direct reciprocal action only with the brain; there accordingly it has its seat, in the sense which the word ought to have.

Now let us see whether the *second* conception is fitted to enable us more precisely to fix the place of the soul. According to it, the soul would, from a single point at which its activity had reached its maximum, extend its influence directly over all, but with diminished force over the more distant parts of the body. Supposing this diminution to take place rapidly indeed, yet with so moderate an acceleration that its effects were still perceptible at a sensible distance from the maximum point, there is no actual phenomenon that favours such a supposition. The afferent operations of the sensory, the efferent activity of the motor, nerves always cease how-

ever near to the central organs their connection with these is severed, and no trace is ever to be found of any direct action of the soul extending outwards even so far as to pass over the trifling interval created by a fine cut between two immediately adjacent elements of a nerve. The second conception would thus be applicable here only in the particular form in which exclusively we apply it to the greater part of the ordinary relations of the body; with so extraordinary rapidity must distance from the point of maximum action diminish the action itself, that at a sensible interval it would no longer be perceptible. Just as a body does not reflect the rays of light, and is not set in motion by impact, until in both cases it has been touched in its place, so the soul would exchange action with those elements alone whose effects approximated within an imperceptibly small interval to the point of its maximum action, a point which on this account it would be allowable to speak of as the only place of the soul's direct efficacy, as its exclusive seat.

Now this is the conception that for long has been elaborated with special preference. It was favoured on the whole by the structure of the nervous system The course of the sensory nerves is obviously designed so as to convey impressions to a place in the brain where they may come into reciprocal action with the soul, while the motor nerves transmit excitations—which there only the will directly communicates to material masses—to the muscles withdrawn by distance in space from the immediate influence of its impulse. It was hoped that a continuation of the same structure would be found in the brain itself, a culminating point of the whole nervous system into which all the afferent filaments ran, and from which all the efferent channels of energy diverged. Such a point all would have been completely satisfied to recognise as the soul's seat But as yet anatomy has not been able to find any such point, and there is no hope of its doing so hereafter. The fibres stretch alongside one another, cross, and are intertwined; but they do not merge together into a single culminating part, nor even take a common final course

so as to approach any such point Not even in the system of the ganglionic cells—roundish vesicles that in great numbers surround the fibrous medulla in the fibres, and are scattered between its rows—are there any signs of centralization. They are connected together by delicate commissural filaments: but we know not whether this connection extends throughout, or indeed what is the general office of the ganglionic cells in regard to the reception, excitation, and transformation of the stimulations taking place in the fibrous medulla.

Any one, however, cherishing the hope that more minute observation would find some such limited seat of the soul, could not but acknowledge that it has been sought for in a wrong shape. Slender as is a single nerve-fibre, a point of common intersection for all could not be an indivisible point, must be a cubic space with a diameter of quite appreciable magnitude. This space must be under the soul's direct control; within it we would not expect to find isolated nerve-filaments continued; their isolation could only serve to bring the physical processes taking place in them, without any intermingling, into the soul's sphere of action. When they have arrived there, their farther separation is unnecessary; for in the soul itself there are no partition-walls dividing different impressions, and it must be capable of holding their multitudinous variety, without confusion, in the unity of its being. This cubic space, the seat of the soul, would then have to be conceived either as filled up with a parenchyma without fibres and somehow homogeneous, throughout which nerve-stimulations are propagated in all directions, or as a cavity along whose sides, and within the distance to which the soul's immediate efficiency extends, all the nerve-fibres—or a sufficient select number of them—require to pass though not to terminate. The last-mentioned conception has in fact frequently been adopted, and the soul located in the fourth ventricle, without, however, the needful confirmation from anatomical facts.

I bring forward these possibilities—to which many others

might be added—partly from a conviction of the value of elaborating any view into perfect clearness, partly from another conviction, that anatomy is not yet in a position to pass an absolutely decisive judgment on them. In itself none of these conjectures is of any great value; it soon appears that each of them, even if correct in point of fact, yet in respect of its meaning must be resolved into the *third* of the conceptions referred to above. For what would be the ultimate meaning of the statement, that the soul is contained within a limited space, and consequently acts on and is acted on by that alone which is in contact with this space? The soul cannot prefer one particular *empty* space to another empty space, as finding in the former a more suitable place than in the latter; its having a fixed place means, as we have seen, no more than that its nature compels it to reciprocate action directly only with such real elements as are in that place The taking place of such reciprocal action it is that properly constitutes that space the soul's seat, and if, as we may unhesitatingly assume, there are many elements with which the soul stands in this mutual relation, then its place is no less manifold. Not because compelled to do so by the nature of the soul, but simply from an easily understood craving for something which it can grasp, our imagination still goes on seeking for these many places a geometrical centre of their distribution, and would fain find in it the soul's peculiar seat; but it could not say in what closer relation the soul stands to *it* than to those places in which it acts. Therefore, whether the many places of efficacy approach in the brain more nearly to each other without enclosing other places of inefficacy, whether they thus form a seat of the soul that presents itself to our imagination as one, or whether they remain a scattered plurality of points—all this is an anatomical inquiry in regard to the arrangement of the reciprocally acting elements, which it may be left to experience to answer. Whatever the answer may prove to be, it cannot alter the general conceptions at which we have arrived.

I conclude by referring to another conjecture — that,

namely, of a mobile soul, whose seat varies within the central organs. It appears to me to have little value. In order that the soul should be able to move to the particular point at which there is an arriving stimulation to be received, it must already have been informed of the quarter whence the stimulation is to be expected. Thus, in order to be determined to this movement towards the just now stimulated nerve-fibre and towards no other, it would need to have somehow been from a distance influenced by its states without being affected by the states of the others in which a stimulation is not now arising. The soul's motion consequently could serve not as an instrumentality for initiating a reciprocal action with the stimulated element, but only as a subsidiary means of confirming an action already going on. It would be still harder to see how the soul would set about making its way to the motor element, to which it has first itself to communicate excitation.

§ 3. A difficulty that must already have made itself felt constrains us still further to modify—in a way, however, that will prove to be not without value—the views which we have reached. That the soul should directly reciprocate action with a limited number of nervous elements, and with no others, remains improbable so long as we cannot find in the nature of these favoured elements anything different from the nature of the others with which the soul stands in no such relation. Now, it is a view that no doubt has been maintained by not a few physiologists, that the functions of the nervous centres are essentially different from those of the nerves, and also from the energies of those parts of the brain that may be regarded as prolongations of the nerves carried into the cavity of the skull. This hypothesis involves the assumption of a specially privileged nature of the elements that minister to these higher functions, though anatomical observation affords no direct evidence in support of such a conclusion. But however it may be as to this, on more general grounds the usual assumption seems to us inadequate, that all necessity and capability of reciprocal action between

two elements results from a definite relation between them in what we call their nature or the qualitative content of their being. *What* the one element undergoes from the other will depend, not only on what that other is permanently, but also on its present temporary state; perhaps even such a relation of efficiency as *that* one element is compelled to reciprocate action with another, does not always hold between the abiding natures, but only momentarily between particular states of the two. Or, if both are linked together in this way for all time and all states, then the ground of their connection is not what they both *are*, but that, in virtue of what they are, they can *be in states* which, by the meaning and plan of the cosmos, are bound together as antecedent cause and consequent excitation. I do not intend to pursue this thought into its metaphysical connections, preferring to give it distinct expression in a closer treatment of our special subject. The soul will not stand in exclusive and unremitting reciprocal action with a particular class of nerve-elements and all states whatever of these elements; but, as it will at first be susceptible only to certain kinds of action, it will limit its efficiency and its susceptibility to that group and number of nerve-elements, because in those alone is that action realized. It still remains uncertain whether it is the peculiar nature of these elements, or simply a favourable position among others, that makes them the exclusive theatre of this action. In the latter case no specific difference between the elements of the central organs and those of the nerves would be necessary; peculiarity of structure would make the central organs the exclusive seat of the soul, because it alone would render possible the processes for which the soul possesses the sympathetic susceptibility referred to.

I have still to show that the view now set forth does not owe its origin entirely to speculations on the seat of the soul; that, on the contrary, independently of these, it reappears in the consideration of psychical phænomena which, at first sight, seem by no means compatible with it.

One of the most commonly current conceptions of the

origin of voluntary movements is that the commencements of the motor nerves lie spread out beside one another in the brain, like the notes of a pianoforte But even if these notes are there, the soul is incapable of playing on them. It is ignorant of the relative situation of these notes, it knows not that this and not another note corresponds to the particular movement which it intends to make—in this unlike the pianist, who has learned to connect the note on the instrument which he *sees* with the written note. And even did it know all this, of what avail would it be? How would it set about transferring its energy to one note rather than to another? This the performer can do only through the still unexplained tractability of his fingers, which fall where his will directs; and he could not do it if he had first by his own insight to effect the transference of his definite volition to the nerve-fibres corresponding to it. The soul, as we have seen, can do nothing else than produce or endure a state in itself, to which Nature, without its assistance, has attached the initiation of a corporeal change. This state is to be distinguished from others only by what it is qualitatively; and on its quality must depend not only the kind and amount, but also the place of the action attached to it by nature. Neither pleasure nor pain implies any knowledge of particular nerves and muscles, any impulse to move them; but they are heterogeneous disturbances of the mind, and on account of this inherent distinction the one is followed by laughter, the other by tears. Neither consciously nor unconsciously has the soul here sent forth its influence in one direction from pleasure, in another from pain, but without any interference on its part, the two several kinds of stimulation have been answered by two several movements, *i.e.* the one by an action in certain muscles, the other by an action partly in different muscles.

Has the soul, then, we shall be asked, to proclaim its states at random, and to wait till what is required comes to pass simply through the varying tone of its utterances, without itself commanding what is to happen? No doubt this demand, which we must in all seriousness make of the imagination, is

unusual enough; yet it will prove to be one that is not impracticable. Of the countless waves of sound that traverse the atmosphere, each one doubtless produces some disturbance in any stretched lamina of metal, any window-pane, that it happens to strike; but only one will make the lamina sound simultaneously, namely, that one whose vibrations the lamina is by its structure and tension fitted to repeat. When out of a fluid compound of different substances one has to be extracted, we merely apply the proper means for its precipitation, without having to give it a particular direction, and thereby to follow the dispersed particles of the substance to be extracted; diffused as it is through the whole of the fluid, of itself it keeps aloof as it passes by, from all the particles with which it has no affinity, and with perfect accuracy everywhere detects the particles with which it can combine to form a precipitate. After this one has been precipitated, another ingredient will be extracted from the same solution by a second reagent, always by those substances, which from their qualities are related, coming into reciprocal action and attracting one another at short intervals, never by a particular direction being inherent in any one from the first, and the result being variously moulded according to the nature of what it meets in this direction. Did all the motor nerve-extremities in fact lie arranged like notes before the soul, its influence on them could be no other than it is. It would not in any case impart an impetus in a fixed direction, which would have to excite this movement, and not any other, because in that direction it came into contact with one nerve-extremity, and not with another; on the contrary, for each intended movement it can produce only one special qualitative state, one tone of definite pitch (to return to our simile) and the direction in space taken by the soul's influence, and only by an illusory appearance inherent in it from the first, will depend solely on the elective affinity prevailing between this state and the peculiar capacity for work of a particular nerve-commencement.

These relations are made most clear and simple by a reference to mimetic movements. The feelings crossing one

another in our moods appear embodied in infinitely delicate gradations and compositions in the expression of the countenance. Scarcely any one will be disposed to attribute this inexhaustibly characteristic play of slight movements and contractions to a conscious or unconscious activity of the soul, seeking out a great number of nerve-commencements in order to communicate to each of them an excitation corresponding to the elements of pain and pleasure which are here mingled. Does the soul itself know why tears suit pain better than pleasure, and laughter the latter better than the former? Unquestionably it has here neither sought nor found; as, on the contrary, each several phase of feeling, as a psychic disturbance, finds its way to fixed organs for its expression, because these alone share in the excitation of this disturbance, so also the blending of feelings of itself makes its complicated way to the parts in which it has to find its corporeal echo. But this procedure is not confined to this one class of movements. Every other movement which we voluntarily execute has as its true, generative starting-point a conception of that peculiar modification of the organic sensations which former experience has taught us is connected with the movement that is taking place. We bend our arm, not by giving a particular impetus to each of its several nerves, but by renewing in ourselves the image of the feeling which we experienced in a particular position of the arm, or doubling of the skin, or degree of tension of the muscles; on the other hand, we find ourselves unskilful in imitating a movement, when we see it distinctly, but cannot at the moment realize the special sensation by which its performance would be accompanied.

It would be vain here to attempt to convey a more detailed and vivid idea of the manner in which these mental states are propagated over the bodily organs, and in some special ones awaken an answering echo. We must rather beg that if, as we hope, the comparisons employed have made our thought clearer, these comparisons themselves may again be forgotten. For only the general proposition, that every exciting action of the soul on the body starts from a mental state

of fixed quality, and therefore takes a local course towards a particular organ, can we hold to be necessarily and imperatively valid; we are unable to accept any further explication or illustration of this process. For general considerations, such as are here competent, will never so completely and exactly detect the needs of the soul in its intercourse with the body as to enable us beforehand to state the actual arrangements, from our insight into what would be to the purpose. Usually it is the discovery of facts as they are that enables us *à posteriori* to discern their indwelling purposiveness and directs our attention to necessities which appear to us urgent and imperative after we have become acquainted with them through the provisions for their satisfaction, but of which beforehand we had not the faintest prevision.

§ 4. A counterpart to the preceding discussion is occasioned by the office of consciousness not merely to apprehend a great multitude of sensations in their qualitative content, but further to combine them together in fixed spatial order. This operation would seem necessarily to imply that the several impressions are transmitted to the soul in the same relative situation in which they reached the body, and that at the seat of the former the isolated nerve-fibres, each one of which conveys but a single impression, terminate in the same regular co-ordination in which, in the organ of sense, they receive the stimulations as they come. But closer examination will soon show that this hypothesis would not serve really to explain our space-perceptions.

Must we first of all expressly state, or may we take this as acknowledged, that extended images, resembling their ectypes, and covering them, are not detached from objects in order to enter the soul? and that, even did this actually happen, the presence of these images in the soul would as little explain their becoming perceptible as the previous existence of the objects outside the soul? Must we add that even what we call an image of the object in our eye is nothing more than the fact that on the nerve-extremities lying side by side in our organ of sense, variously-coloured

rays of light fall in the same order in which these rays proceed from the objects themselves? Lastly, that this fact of a regular co-ordination of various stimulations in various nerve-fibres is after all not the perception of the process, but only the process itself that is to be perceived, the possibility of which coming into consciousness with its inherent order undisturbed, forms the very subject of our inquiry? We will assume that at least this is allowed. Now whether, as seems to some probable, this ocular image is transmitted without injury to its outline, through the optic nerves to the soul's seat in the brain, or whether, as others find more easily conceivable, the soul itself is immediately present in both eyes: in either case, in what way can the fixed situation of the variously stimulated nerve-extremities, consequently the relative situation of the impressions, become to it an object of consciousness? And to make an extreme concession—were the soul itself an extended being, filling with its presence the circumference of the eyes and the surface of the skin so that every coloured point falling on the retina, every pressure on the surface of the body, at the same time touched a locally-defined point of the soul; how even then would it become aware that the stimulus had come into contact now with one point of its own extension, and not another, and then with that point and not this?

If we will not assume an immediate, complete, and inexplicable knowledge by the soul of its own compass, or of the form of the body, we must allow that some time the moment must come at which the situation in space of the points of the image to be perceived—however long and carefully it may have been held fast by the organ of sense—will yet wholly disappear on passing into consciousness, in order to receive there a fresh birth, and to reappear, not as situation in space, but as perception of the same. The necessity of this concession does not at all depend on the conception which we form of the soul as occupying space or not, but solely on the notion of the consciousness that we ascribe to it whatever may be its nature. Even should the soul be diffused

in space, and permeate the body as a subtle exhalation to its last extremities: its *knowing* and *perceiving* would yet always be an intensive energy which we cannot conceive diffused as a material substance. In consciousness all those partition-walls cease which in the corporeal organ of sense divided the several impressions from one another; not even that variety of local situation can any longer appear, by which we may suppose the impressions made on the extended substance of the soul to have been still discriminated; the unity of consciousness, devoid of all reference to space, remains susceptible only to the qualitative differences of stimulations, and all the coloured points in the eye, the pressed points of the irritated skin, must primarily coexist in it with as little relation to space as the simultaneous and yet distinguishable tones of a harmony.

If the soul is to rearrange this manifold impression into a distinct perception of space, two things are needful. First, it must possess in the constitution of its nature at once a compulsion, a capacity, and an impulse to form conceptions of space, and to move the manifold content of its sensation in this kind of combining together and drawing asunder. Philosophy may perhaps succeed in finding a higher reason why the soul—at least the human soul—must evolve from itself this form of perception, perhaps too it may not; we at all events assume this capacity as an acknowledged fact, and the object of our examination is not to explain itself, but only its possible application. For, before this application can be made, before the soul, within the general intuition of space which with perfect impartiality it brings to bear alike on all possible content of perception, is able to assign its particular place to each several impression, there is evidently required an impetus proceeding from the impressions themselves that have to be arranged, and determining their relative collocation in space. It is the satisfaction of this second necessity alone that forms the subject of our present inquiry; to this exclusively refers the conviction which we have already expressed, that the

constraining reason why the soul assigns to every impression its particular place in the space which it perceives, does not consist in the situation of the impression in the organ of sense, for these space-relations of the material of impression cannot pass into consciousness as they are, as belonging to space; that, on the contrary, that reason can lie only in a qualitative property of some kind which the impression acquires (in addition to its other qualities) in virtue of the peculiar nature of the place at which it comes into contact with the body. To such distinctions alone is consciousness alive, and they act as marks or as *local signs*, under whose guidance it proceeds in spreading out the impressions into an image occupying space—placing side by side those whose local signs are intimately allied parts of a graduated series, setting down at fixed intervals others whose marks present greater difference.

In the absence of these marks the impression would be perceptible as to its content, but could not be localized in a particular place. Cannot any colour successively appear at any point whatever in our field of vision, any pressure stronger or weaker act on any part of the surface of the body? Hence, from its immediate content—that it is of such or such a colour, that it possesses a definite degree of force—no impression can require a particular place in our intuition of space. But along with this content, and nowise disturbing it, there must in every stimulation be a subsidiary determination, which answers exclusively to the point at which the stimulus met the susceptible surface of the organ of sense, and would be different had the same stimulus come into contact with another point in the organ. Each several localizable impression conveyed to the soul consists therefore in a fixed association of two elements: of these the one is that physical process which compels consciousness to generate a particular quality of sensation, to see a certain colour, to feel a particular degree of heat; the other is the special subsidiary process, the same for the content of all kinds of sensations, but different for each several place of commencement.

An impression therefore is not, as if consciously, referred back by the soul to this its starting-point, because it arose at some particular spot, but simply because it has retained this qualitative mark of its situation in respect of others.

We shall find how this relation corresponds with the results at which we formerly arrived in regard to the origin of movements. As in that case the soul did not send forth identical impulses in particular directions of space, but generated qualitative internal states, which it had to leave to themselves to find a direction in accordance with their peculiar character, so here it does not mark out the places of stimuli merely as such, but requires internal differences as the condition of their separation in space, and measureable amounts of these differences, that they may be severally referred to particular parts of space. This arrangement we look on as the necessary foundation of all our conceptions of space, through whichever of our senses we may receive them; but we must leave it to the more special investigations of physiological psychology to indicate in what form these general requirements are in each several case fulfilled.

§ 5. So long as the opinion is maintained that the space relations of impressions pass as such into the soul, it must of course, in the interest of the soul, be further held that each impression is conveyed to it by a distinct fibre, and that the fibres reach the seat of the soul with their relative situation wholly undisturbed. The consideration usually comes too late, that with all this nothing has been achieved; for the mere fact that the one impression arrives by this path, the other by that, would not serve to explain the soul's intuitions of space, unless it could either with a new eye and a new unexplained power of perception see the course of both paths, and measure the angle between them, or else blindly discern whence the stimulus comes. The first it cannot do, the second it could do only if the stimulus brought in or along with its content a perceptible sign of its origin, and thus this opinion would in the end return to the conception of local signs from which we set out. If,

on the contrary, the calculation of the origin of impressions does not depend on the direction in which they approach the soul, but on the qualitative subsidiary impression which they have retained as a reminder of their starting-place, it is no longer required by any psychic interest that in the interval between the organ of sense and the soul, their relative situation should be preserved, and each of them conveyed to the latter along a special channel. If we wish to place a library in new shelves in the same arrangement which it had in the old ones, we do not trouble ourselves to preserve the arrangement during removal, nay, we more likely disturb it, sometimes putting together volumes that, without harming each other, can be conveniently packed together, and in the new place we can leave it to a stranger to restore the old arrangement according to the label attached to each volume, which indicates its place. Just in the same way may we suppose that during the passage of nerve-impressions into consciousness, their order in space is deranged, and there is no reason why this should not take place even previously within the nerves. For all that signifies is that each impression be kept apart from others till it has received its local label; after that, no further separation is needed for the service of the soul. So a number of letters are put up together, and at the place of destination it can at once be seen, from the imprinted mark, whence they come, in whatever manner they may have been conveyed. The necessity for separation could continue only if the nature of nervous processes did not render it possible for different impressions, with their local marks, to be simultaneously transmitted through the same fibre without disturbance to each other.

It is possible that the latter case does actually occur, and indeed this is a quite usual mode of explaining the isolated course of the primitive nerve-fibres, which do not blend with others and are without division of their simple tube. But the explanation of anatomical facts is sometimes rather a traditional custom than a demonstrated truth. Natural as it

is to suppose that the isolation of the fibres is instrumental to a separate transmission of impressions, we yet find it in cases where it is hardly possible to conceive such an end is to be served. A muscle, whose whole mass is designed normally to contract, yet receives several nerve-filaments, and they also run without blending to the spinal marrow, though no case ever seems to occur in which it would be favourable to the intended function that the excitation of each one should be propagated separately from that of the others. The olfactory nerve, like all the other nerves of sense, divides into a great number of fine filaments, and yet it is hardly designed or fitted to receive a corresponding number of smells simultaneously and without mingling of their peculiar qualities. The same holds good of the gustatory nerves, whose perception of different impressions is never so distinct as to make it worth while to provide for it by a multitude of separate channels. From such facts I do not think that any other conclusion can be drawn than this, that the employment of the isolated nerve-fibres, whose diameter fluctuates very slightly, is necessary for the organism for a very general reason. Perhaps the physical process on which the energy of the nerve is dependent—whatever may be its nature—can be developed only in filaments of a fixed thickness and limited transverse section. If we add the further supposition, that the magnitude of this process within one of these cylindrical elements can likewise be but limited, it will follow necessarily that it is only by means of a larger number of fibres conveying the same impression that its force can be brought up to the amount required to make it further serviceable for the ends of life. The same arrangement we also find outside the nervous system in the muscular tissue, whose splitting asunder into an extraordinary number of the most delicate filaments would seem purposeless, except on the supposition that here too only cylinders of such slenderness are capable of contraction, so that the requisite power of mechanical work has to be supplied by the great number of united fibres. The universal employment of the cell-form in the structure of the plant is a similar fact;

it, too, indicates that the peculiar class of chemical processes required by vegetable life is possible only in minute bodies, containing a half-fluid sap-ball of small diameter that with its whole bulk lies within the sphere of action of the molecular force exerted on it by the tough cuticular envelope. Be-this, however, as it may, we can at any rate affirm that the formation of prolonged and unramified fibres is a very general habit of the organic impulse of growth. But after having, for whatever reason, been once adopted as one of its permanent modes of procedure, it can of course also be advantageously employed for the isolation of particular paths of stimulation, where for some special purpose this is needed, without in all cases exclusively ministering to that end.

§ 6. In the last place, I would fain emphatically defend the attention which we have so long bestowed on this whole problem against the depreciation of those holding opposite opinions, who regard the discussion as altogether superfluous. We cannot think it superfluous to indulge a curiosity which, however often it may be stifled, drowned by loud words, yet is certain to revive in every mind, and without a distinct answer to which, the conception that we form of the reciprocal relation of body and soul, deprived of its most natural point of attachment, will float unsupported in the air. Our answer itself may, but the attempt to give one cannot, deserve censure and opposition. It will reap these abundantly and in diverse forms from those who conceive the soul as diffused with like omnipresent efficacy throughout the whole body, receiving at every point impressions as they come, and dispensing the excitations corresponding to its purposes. If, however, the worth of a conception may be measured by its conformity with observed facts, I do not think we need dread the attack of this assailant. Even if it does not necessarily postulate that key-stone of the whole nervous arch, which anatomy has *not* been able to find, it has, on the other hand, never yet been able satisfactorily to prove what is its need of the nervous system, which observation does find: it has not succeeded in showing how this everywhere diffused soul comes to refer its

several impressions to particular points of space, and to sketch for itself a representation of the body through which it is diffused; finally, it has never been able to set aside the contrary evidence of experience, teaching that only after they have been transmitted to the central organs do the bodily stimulations exist for consciousness, and that only after they have been conveyed in the opposite direction do the mental impulses exist for the body. Far more at war with observed facts than supported by them, this view only seeks to set up a preconceived opinion of the necessary unity of the body and the soul, and, in its persuasion of the superior value of its conception, seldom deigns to employ any other weapons than those of ridicule against the theory which we have been defending. So—they will retort upon us—our personality consists of body and soul as two separate component parts? And at a single point the soul, like a human judge, sits on a high throne, listening to witnesses on either side as they inform it of what has taken place in its body, and what it has been unable itself directly to learn? The reader can easily further imagine these objections, but he will at the same time remark that imagination has been at work in them; for we have given no real occasion for the *So*. Of course we do not hold our personality to be made up of body and soul, but wherever we may seek our true being (in the strict sense of the word) we are aware of finding it nowhere but in the soul; and we have never looked on the body as more than the most intimate piece of the outer world, given by a higher power to be more truly our own property than anything external can ever be made by our own labour. And after all, what shall we find incongruous in a seat of the soul, if we quietly set aside the high throne and the whole *genre* picture of a judicial cause,—additions due only to the liberal fancy of our opponents? Since, as a matter of fact, our soul does not omnisciently perceive phænomena or omnipotently produce effects at a distance, what do we lose by honestly confessing this fact, and confining the circle of direct reciprocal action between body and soul to one single part of the central

organs? If the soul becomes aware of the slightest tremblings of the body by their direct transmission to itself, and accompanies them with the subtlest variations of sensation and emotion; if, on the other hand, the bodily mechanism turns into expressive motion every fleeting excitation communicated by the soul to one of its points—what do we really lose? And what would we really gain by the opposite conviction that the soul itself is bent in the bent forefinger with which we beckon to some one, or clenched in the clenched fist with which we afterwards knock him down?

# CHAPTER III.

## FORMS OF THE RECIPROCAL ACTION BETWEEN BODY AND SOUL.

Organ of the Soul—Organ of Space-Perception—Corporeal Basis of the Feelings—Higher Intelligence, Moral and Æsthetic Judgment—Organ of Memory—Sleep and Unconsciousness—Influence of Bodily States upon the Train of Ideas—Central Organ of Movement—Reflex Movements—Acquired Forms of Reaction—Divisibility of the Soul—Phrenology—Obstruction to the Mind caused by its Union with the Body.

§ 1. WHEN we seek to escape from the pretensions of Materialism, and yet cannot deny the patent fact that the possibility of mental functions being exercised depends to a great degree on the connection of the brain being perfect and its structure uninjured, we are in the habit of betaking ourselves to the expedient of regarding this essential part of the body as merely the organ of the soul. This continues, we say, to exist of itself as a supersensible, simple being, provided with capacities with which we are familiar; only in order to exercise these, it requires the instruments which the organization offers to it all ready in the structure of the brain.

I have already repeatedly expressed my conviction that our knowledge of mental life will make no progress so long as we think that we have gained any result of importance in so thoughtless a conception as this of the soul's organs. It does not surpass even Materialism in clearness. For, apart from the general inconceivability—how it can succeed in linking mental actions with corporeal masses—Materialism is clear at least in this, that it terms the brain the agent, thinking and sensation, feeling and willing, the direct operations of that agent. This simple relation we understand; what, on the other hand, may be the meaning of the soul feeling,

thinking, or willing, not itself, but through the brain, evidently requires explanation; for every such *through* is to a scientifically trained understanding an enigma which it must have solved, while the enthusiasts for higher views of things almost always think the solution of all enigmas lies in the very obscurity of such instrumental relationships. When an instrument is mentioned, we must always inquire by what deficiency in inherent force that which is said to make use of it is driven to do so; further, by virtue of what endowments this auxiliary can so compensate the deficiencies of the force which it serves, that this becomes equal to the accomplishment of what otherwise it would be unable to perform; lastly, in what manner the employing force will be able to obtain mastery over the instrument and to apply it usefully for its designed ends. These questions have seldom been put, and, when we survey the great number of organs of presentation, thinking, and willing, which have often been spoken of, though not described in detail, we cannot doubt that among them there are many that are supposed to do for the soul what it needs no outside help to do, many others that could not do what they are called in to execute, finally, many as regards which one does not understand how their—perhaps in itself useful—arrangement could ever come to be placed at the disposal of the soul.

The comparatively inconsiderable degree of study hitherto devoted to making clear what we are properly entitled to expect and require of the body in the way of support and assistance in the soul's discharge of its functions, has always made it especially difficult to give a correct explanation of the central organs. Nor are we likely soon to be able to remove this hindrance in the way of a fruitful investigation. For, though we can readily discriminate what need be looked on only as innate psychic activity, and to seek for an organ of which would be folly, it is but rarely that we can bring into view the whole circle of little aids that are necessary in order that a capability should be exercised in harmony with the outer world, of which the soul is

cognizant only by means of bodily organs. Thus there may indirectly be bodily organs for operations that, in respect of their essential character, neither need nor are capable of receiving corporeal assistance. Hence, from our acquaintance with psychic life, we can but very imperfectly determine beforehand what instruments the organization must put at its service. Yet, even after the many and various attempts made from the most opposite quarters to explain the actual structure, we still feel the fascination of this undertaking, on account not so much of the information that we expect it to yield concerning the functions of the several parts of the brain, as of the occasion offered by it of reviewing the exceedingly diverse forms of the mutual influence of body and soul.

§ 2. It can scarcely be needful for me to speak again more fully of sensation, the first stage of mental life. The body seems to do nothing more for it than to receive the impressions from without, and so bring them into closer contiguity to the soul's sphere of action in a form favourable to easy and exact transmission. Whatever may be the physical processes that take place in the nerves of sense, their transformation into the sensations of colour, tone, or smell cannot be made more comprehensible by the interpolation of a new organ between them and the soul. For the operations of such an organ could at most result in the conversion of one form of nervous stimulation into another, and could not lessen the chasm that would still remain between physical movements as such and the sensations themselves as states of consciousness. Just as little do those manifestations of relating knowledge which are limited to a comparison of the data of sensation, need, or could they make use of, corporeal ministration. In order to judge of the greater or less affinity of two colours or tones, or of the different strength of impressions, consciousness requires nothing but the elements themselves that it has to compare, and besides them that faculty of relating activity which, of all mental operations, we have found to be least attributable to physical agencies. Provided, therefore, no other additional offices had to be discharged,

we would have no occasion to expect a central organ of sentience, on whose preliminary elaboration of impressions the soul should be dependent in its own estimation of them; it would require only channels of communication, which should convey to it the several stimuli, and render it capable of developing its sensations in a series corresponding to the variations in the actual state of the outer world. But, besides these simpler ones, two offices may be distinguished—the arrangement in space of the impressions of sense as perceived by us, and the apprehension of the values of feeling with reference partly to single feelings, partly to particular combinations of several. In both these operations the soul requires corporeal assistance.

We have seen what supposition is necessarily implied in the possibility of an intuition of space; every several impression, every colour-point of the retina, every feeling of contact in the skin, has to be supplemented by a special accessory impression, which, without altering the content of the sensation, merely indicates, as a local sign, its place of origin. To this necessary requirement we now add a conjecture as to the form in which we believe it is met, at least as regards the sense of sight. Only a very small spot in the middle of the retina affords us completely distinct perceptions; all objects, whose images fall outside of this spot, on the side parts of the retina, are indistinctly seen. But every tolerably strong image by which one of these less-favoured parts is affected, involuntarily calls forth a movement of the eye, through which we turn a full look on it, and so transfer the impression produced by it to the spot of most distinct vision. Now, according to its particular position, for each one of these side points of the retina is required a peculiar amount and direction of movement of the eye, in order that the spot of most distinct vision may be exposed as a receptive surface to the rays that previously converged in it to form a less distinct image. The fulfilment of this requirement presupposes that each of the several fibres, whose extremities receive the impressions of light in

the retina, can transfer its stimulations, in a manner and degree peculiar to itself, to the various motor filaments, on whose variously graduated co-operation the extent and direction of the ocular movements depend.

Now if we permit ourselves to conjecture that such a reciprocal action between the sensory and motor nerves of the eyes has been used as the foundation of the space-intuitions, such a manifold and complicated intertwining of the filaments of both kinds as we must presuppose for such an end would be the very type of *a central organ of space-perception.* Each several stimulated point of the retina would then, in consequence of the peculiar way in which the fibre proceeding from it is connected with the motor fibres, produce in that organ an impulse to motion exclusively its own, from which the soul, even if no actual movement of the eye follows, can receive an impression of some sort. Finally, this impression—which need not necessarily even be a process apprehended by consciousness, but may be one of those unconscious states which, notwithstanding, powerfully influence the soul—this impression would be the local sign, according to which the soul assigns to the colour-point connected with it its position in respect of all the other colour-points, *i.e.* its fixed place in the field of vision. We must leave it to the minute researches of physiological psychology both to remove the numerous difficulties of detail involved in this complicated connection, and to prove that in fact a system of such impulses to movement would present all the delicacy and multiplicity of gradation and affinity between the individual local signs, presupposed in the accuracy of our visual spatial perceptions. Our object here could be no other than by this theory (which, with all its probability, rests not on fact but on conjecture) to illustrate the conception that, in this or in some other not essentially different manner, we have to form as to the origin of our intuition of space. Whatever other particular form of conception may finally be preferred, the necessity of supposing a preparatory central organ for this operation of our mental

energy will not be done away with; and we have no hesitation in acknowledging that we believe a considerable part of the bulk of the brain to be designed exclusively for this end.

§ 3. We find the *feelings of pain and pleasure* that partly accompany single sensations, and partly spring from the comparing and combining of several, fluctuate too notably according to the bodily state, to care to seek their origin exclusively in the soul's appreciative energy. In very many cases, of course, morbid affections alter not only the feeling, but also the content of the sensation with which it is associated; it is not the same taste that is repulsive to the invalid, pleasant to the person in health; and in such cases we may conjecture that the soul always judges as to the impression actually conveyed to it by the nerve of sense according to unvarying laws of its own nature, without requiring the authoritative intervention of a bodily organ. But frequently, also, the content of perception remains unaltered, and yet the amount and nature of the feeling awakened by it varies. No doubt here too the strength of the interest which we take in it is sometimes increased, sometimes lessened, by the general character of the actual frame of mind, which may have had a purely mental origin, and on such grounds alone probably do we feel the same harmonies of tones, the same combinations of colours, sometimes more and sometimes less congenial to us. Nevertheless, alike as to the intensity and the phase of our feelings, there remains a variability in our being affected that in all probability can be accounted for only on the supposition that the harmony or discord between the stimulations of the nerves and the conditions of our life is measured by a particular after-effect that takes place, without always duly corresponding to the disturbance or furtherance actually experienced.

In persons under æther or chloroform, consciousness does not always cease with feeling; at first it is sometimes possible for them to take note, with tolerable accuracy, of the several processes of a surgical operation which they are undergoing,

though they do not feel the pain of it. In other affections of the nervous system also, we are made anxious by the peculiar want of tone of our impressions, which are apprehended with perfect distinctness, and yet hardly seem to be our own states, so little are they attended by that feeling of being affected which in healthy life belongs to each of our sensations. Now here it seems as if the transmission of the external stimuli were uninterrupted up to the point where, by reciprocal action with the soul, they are converted into conscious, indifferent perceptions, but as if at the same time they were hindered in their propagation to another point, where they had to awaken that peculiar resonance whose reaction in the soul first excites the attendant feeling. The facts, however, as yet offered by experience do not allow of even accurate research finally deciding the question whether in this sense we really have to assume a peculiar central organ of feeling, or whether some other form of co-operation on the part of the body would not equally account for the phænomena.

But an investigation as to the limits within which in general the feelings require this co-operation would not be without interest. Does our pleasure in consonant chords rest solely on a comparison of the actual *sensations* of sound, so that the soul itself, bereft of a body, would still continue to find the same chords beautiful, supposing it possible for impressions still to be conveyed to it? Or is the soul in this pleasure only aware of the favourable effect incidentally exerted by this precise combination of tones, on some other part of its bodily organization, so that its enjoyment springs, not from the peculiar inherent affinities of the group of tones, but solely from a concomitant advantage, and would consequently be impossible, if along with the corporeal framework the exclusive conditions of the soul being pleased were to disappear? These questions cannot be answered at present, and failing an answer to them (the value of which for our conception of the mental life in general is sufficiently shown by this single example) we must meanwhile be content with

the conviction that the warmth and intensity of our feelings, and along with that the whole mould of our emotional life, is at any rate in great measure dependent on the influence of the corporeal organization.

§ 4. By the accurate transmission of external impressions, by the liveliness of the feelings that associate themselves with each several sensation and its combinations with others, by all these operations the bodily organs pave the way for those higher energies by which the mind forms the cognitive results of reason and understanding into the total of an orderly conception of the universe. But this working up of the materials on which the soul is to exert the energies of its relating knowledge seems to be the only contribution that the corporeal operations can make to these higher functions of psychic life, their actual performance is left to the mind's peculiar activity. When *organs of understanding* or *of reason*, instruments of thinking and judging, are spoken of, we confess that we have no idea either what end such theories can serve, or what advantage there could be for the higher intellectual life in all this apparatus of instruments. None of those relating energies from whose inexhaustibly varied repetition all our knowledge is derived, can be in the smallest degree promoted by the co-operation of a corporeal force; but the practicability of each will depend on the related points which it has to compare, which form the material of its elaboration, being duly and accurately supplied to it by the senses, consequently on its being assisted by the bodily processes. Thus (what has never been denied) the perfection of mental life is indirectly connected by myriad roots with the soil of the bodily existence; but the soil does not, besides the general nutrition which it affords, send upwards a special organ of which the plant must make use if it is to flourish.

Turning, further, our attention to the *ethical* judgment of actions, we readily allow that this too is indirectly very largely influenced by the accuracy with which we apprehend facts through our senses, and the vividness with which, according to our permanent temperament or momentary state of body,

other ideas more or less circumspectly or confusedly gather round these facts, and feelings of their value are developed. Nevertheless, no stimulation of a bodily organ of the soul can co-operate in the essential point—the passing of the moral judgment itself; to the nerves we can at most look for the source of the pleasant or unpleasant value in point of feeling of the action in question as regards the personal life of the person judging, in no wise for that of the estimation of its moral goodness or evil, with which no personal pain or pleasure mingles. While, therefore, we cannot deny that our moral judgment is to but too great a degree actually swayed and confused by the influence of bodily activities, we have yet no reason to press on it the dangerous assistance of a special bodily organ. In like manner, the impression made on us by beautiful objects may, to a great extent, be the result of an agreeable and harmonious excitation of our nerves. But he who sees in the æsthetic feeling, along with an undoubted share of the sense of personal wellbeing, an independent reverence for and appreciation of the beautiful, will be constrained to ascribe this additional element exclusively to the soul. The shudder in presence of the sublime, and the laughter over comical incidents, are unquestionably both produced, not by a transference of the physical excitations of our eyes to the nerves of the skin or the diaphragm, but by what is seen being taken up into a world of thought, and estimated at the value belonging to it in the rational connection of things. The mechanism of our life has annexed this corporeal expression to the mood of mind hence evolved, but the bodily expression would never of itself, without the understanding of what it presents, give rise to the mood. However great and complex, then, may be the co-operation of the bodily functions in the higher life of the mind, it consists certainly not in the latter being furnished with special instruments for its most peculiar operations, but only in the unrestricted action of a number of preparatory organs being required for the realization of many indirectly necessary prerequisites of these operations.

§ 5. Among these prerequisites are not merely the trans-

mission of momentary impressions, but also the retention of past impressions, their reappearance in consciousness, that whole rotation of ideas through whose connection our life receives unity and our actions achieve definite ends. While we have just been trying to conceive the higher energies of mind as independent of the body, they would relapse into a dependent position, if the maintenance of this groundwork from which they arise were left to the physical reactions of the organism. According as an *organ of memory* more or less faithfully and permanently preserved the results of the previous life, the more easy and elastic were the passage of the nervous tremors by which the copies of past impressions preserved in the brain resuscitate one another, so much the purer and fuller, or the more obscured and poor, would be at each moment our consciousness of the connection of our life, our duties, and our hopes. Or rather, there would be no such connection at all, but moment by moment the soul would exhibit the thought, the feeling, or the volition prescribed by the bodily stimulation just then newly awaking; destitute of any power even within itself to approximate the past to the present, it could not keep steadily before itself, through the smallest space of time, a single thought whose significance became complete only through a succession of several ideas. There is no doubt that our train of thought does to a great extent depend indirectly on the constant influence of bodily processes; nevertheless, the doctrine of a special organ of memory, even as a mere means of support to the soul's own power of remembrance, is exposed to greater difficulties than is commonly thought. The objection that the cerebral mass, which is not unalterable, but undergoes slow renovation, could not, without confusion, retain for future use the impressed copies of countless impressions, is met plausibly but not convincingly by reference to the countless undulatory movements of sound and of coloured light that can simultaneously traverse the same atmospheric space without mutual disturbance.

When we have been for a short time looking steadily at

the sun, we retain a sharply-outlined circular after-image of it even if we close our eyes; for during the whole of the short time that the look lasted, the rays fell on the same contiguous points of the retina; the effect continues to thrill in the same circle of adjacent nerve-fibres, and thus the relative situation of the stimulated parts preserves for us the round figure and the size of the image. If, on the other hand, we see the figure of some one approaching, every step nearer he comes, the image on our retina assumes larger dimensions, hardly one point of the whole figure answers at any one moment to the same spot of the eye as at the moment before; not one after-image, but numberless images all different one from another would remain, if our nervous organs really fixed every momentary impression in permanent traces. Nor would we gain anything by supposing that a considerable number of these fleeting stimulations joined to form a permanent after-image; for what distinct image could proceed from an agglomeration of many images resembling one another in their characteristics, but in their size so dissimilar that the edges of each one projected over another, and they all, consequently, covered one another with different points of their outline? If we have observed how entirely under the same circumstances the different overlapping coloured spectra of the prism blend into a uniform grey, we shall assuredly find it impossible to suppose that the visual perceptions generate in this manner abiding impressions, that, like the after-images, retain the shape and colour of seen objects. And yet we have hitherto assumed that these figures are invariable in their outlines. But we see the same person perhaps in a thousand different attitudes and motions of the limbs; which one of the numberless images that he has thus cast on our eye will the brain retain? Or are we to suppose that they are all retained? If we should perchance make up our minds to this, at what price should we have after all purchased this corporeal fixing of impressions? At no less a price than the admission that, seeing the smallness of the brain does not allow us to assume that each of these countless images has a special particle in which it inheres, each several

simple atom must be capable of containing in itself, without any mutual disturbance, an infinite number of different impressions. The same atom that in the image of a tree represents a green point, must in that of a flower represent a red one, in that of the sky a blue one, in that of each several human figure one of a different colour; and, without knowing how it is to take place, we must further suppose that the resuscitation of any one of these impressions in one of these atoms always calls forth in another that particular impression which, along with the former, goes to form a coherent image.

Such a theory would simply contain many repetitions of the same supposition that we make once. If every several atom of the cerebral mass is capable of retaining without confusion numberless impressions, why should the soul alone, like the atom a simple being, be incapable of doing so? Why should it alone not possess the faculty of memory and recollection in itself without the aid of a corporeal organ, when we have to concede that faculty directly and without the mediation of a new instrument to every part of the assumed organ? Nay, we must in fact make the contrary assertion that the retention and reproduction of impressions is possible, not to a number of co-operant cerebral particles, but exclusively to the soul's undivided unity. For even the images of sense-perceptions preserved in memory are not in the strict sense images, not likenesses unvarying in their size and the number and position of their parts; on the contrary, the soul retains only the general outline, the design, the idea of the internal connection of many marks, and thence, at the several moments of recollection, educes the particular images; nor does it always bring back the image of a position, attitude, or movement of the figure, which on a previous occasion it perceived, and of which it might have retained a fixed impression, but, anticipating experience, it beholds familiar figures with their outlines distorted in a way that never has been actually witnessed. But this retention not so much of the various constituents themselves as of the rule of their

composition, is an action of relating knowledge, an operation of the soul; to admit an organ of memory would only lead to our having to attribute a memory to the soul, and also to regard the several atoms of the brain as souls whose power of remembrance assists ours. And throughout this discussion we have wholly kept out of view those indirectly produced and more general conceptions which are not images of an object, but expressions of internal relations; any attempt to account for their retention by corporeal copies would only confirm the necessity of including memory among the operations derived immediately from the soul's peculiar nature.

But do numerous and daily recurring experiences not show that this attempt—to prove from the notion of ideation and recollection the impossibility of their having a corporeal origin—has reached an incorrect result? Have we not sufficient evidence of such an origin in ordinary sleep, in unconsciousness, and in the constantly recurring derangements of memory in disease? Do not all these phænomena show that the above mental operations can be performed only so long as their organs are uninjured? Plausible as is this reasoning, it is nevertheless ill-grounded, and opposed by another interpretation of the facts.

When in a highly complex system of elements the disturbance of one part puts a stop to a particular operation, it may be that this operation depended on that part as its exclusive efficient cause, and now ceases because that which brought it about has ceased to act; but it is no less possible that it was in no wise dependent for its production on the disturbed part, but is only hindered by the disturbance of this as by a positive obstacle. We are of course primarily disposed by our general view of the nature of consciousness in favour of the latter explanation; for it would seem quite incomprehensible that a corporeal organ should be able to communicate to the soul the capacity of consciousness, if it did not inherently possess it. But, moreover, the results of observation in part distinctly favour our conception and nowhere decidedly oppose it. To account for ordinary sleep by exhaustion of

the central organs thus become unfit for further generation of consciousness, must seem in the highest degree improbable to any one that remembers how quickly in healthy bodies—nay, where the habit has been formed, how immediately—slumber may succeed the most vigorous exercise of all the mental powers, and how far from being really exhausted when it is accidentally interrupted, these powers or the force of the central organs underlying them are found to be. Much easier is it to suppose that the gradually increasing feeling of exhaustion acts as a stimulus that by its unpleasant enervating effect takes away delight and interest in the continuance of the train of thought; and in like manner a person awaking from profound sleep gives the impression not so much of one whose powers are being restored, as of one who is gradually being set free from obstacles. When very severe bodily suffering causes sudden loss of consciousness, we may think that we can attribute this to the rapid enfeeblement of an organ causing the intermission of its operation, consciousness; when a swoon is the consequence of the mind being suddenly affected by calamity, I see no reason why this inward tumult of the soul should not be viewed as an obstacle making the continuance of consciousness for the moment impossible, and at the same time putting a stop to the wonted subjection of the corporeal energies to the soul's dominion. If we may here look on the mental pain as an antagonistic stimulus preventing the (always existent) capacity of consciousness from expressing itself, why should not the bodily pain of the former case have the same effect? This, too, is not merely the bodily disturbance from which it proceeds, but as feeling it is a state of consciousness, and a state too of which we know from personal observation how much even in its lesser degrees it interferes with the carrying on of steady thought by the overpowering impression and the relaxation of interest in anything else which it creates. Lastly, we must add that it is by no means necessary that all the influences—though they may be very powerful—exerted by the body on the soul should be of such a nature as to cause distinctly conscious perceptions

and feelings; on the contrary, as in sensation bodily stimulations call forth an expression of consciousness, they may equally well have the opposite effect, and consciousness may suddenly vanish under an impression that either remains quite latent or else is felt by departing sense only under the form of vague, unusual, indescribable feelings.

We cannot see that the various kinds of unconsciousness require any other explanation than this: consciousness need not be generated by an organ, the injuring of which causes it to cease; but, as an inborn capacity of the soul, it may be opposed by impressions from innumerable quarters that unfavourably affect the soul's inward condition. Much greater obscurity hangs about those half-lapses of memory which make it impossible to recall certain parts of the past experience, and of which we possess (along with many evidently falsified accounts from former times) many indubitable examples taken from everyday experience. We do not withhold the acknowledgment that here much remains unexplained, and in particular cases will always remain so; but these facts do not impress us as being in favour of a specially corporeal origin of memory.

Looking only at the course of thought during our healthy condition, we must confess that the moving springs that brought one idea back to consciousness and the reasons why another was so long out of consciousness, are often wholly unknown to us; we dimly conjecture that the succession of our thoughts is not merely guided by the association of the ideas with one another, which, by observation, we can track pretty distinctly, but is to a great extent determined by those other much vaguer associations that at every moment are being formed between our actual sphere of thought and the simultaneous general sense of our bodily and mental mood. Disease and advancing age gradually or suddenly alter this vital feeling; hence age no longer finds itself at home in many of the spheres of thought of youth; for, even if it to some extent reproduces the matter of the conceptions, there is now wanting the lost temperament that is needed to carry it further; in like

manner the convalescent cannot throw himself back into the dreams of his illness, for in getting rid of the morbid feeling he has lost the key to the gateway admitting to them; thus, finally, in a renewed attack of illness the former wild dreams return in consequence of their cause—disturbance of the general sense—being again in action; thus we find ourselves occasionally in life, especially when stirred to the depths of our being by strong mental agitation, suddenly surprised by long-absent dreams, by recollections and moods to which we can hardly assign any definite place in the history of our life.

Those remarkable disturbances of memory which are produced by disease or injuries, seem to me to present no enigmas essentially different from those involved in the accidents that occur in a state of comparative health; in all cases what has to be done is to show from what direction an antagonistic pressure is exerted on the bond through which in health the impressions of the moment would bring back the remembrances associated with them. We can scarcely hope to succeed in showing this fully in any single case; least of all need we attempt to do so with the numerous stories current, in which we too often and too unmistakeably meet with all sorts of mistakes and omissions caused by the prejudice of the observer or his inattention to details that seemed to him unimportant. In many such accounts we find loss of memory inferred from impaired power of verbal expression. But with this phænomenon we enter a department quite distinct from the former, in which the soul no longer is self-contained, but seeks to use corporeal means of utterance. Control over organs of voice and language is assuredly possible only through a central organ, in which the motor nerves are so arranged and intertwined that the sound-idea hovering in consciousness can simultaneously stimulate the fibres co-operating in its utterance. If the conjectures are allowable that we have already hazarded in regard to the production of movements, it is easy to understand that many morbid affections of this central organ may prevent the correct trans-

mission of the stimulation. The patient would then, while clearly conscious of the sound which he wishes to make, be yet compelled to utter another one, or be incapable of any utterance whatever. We have, however, in respect of all movements alike, equally with those involved in speech, reason to presuppose a co-ordinating central organ, and it is time now to state our views in regard to the production of bodily movements in general.

§ 6. We have already seen that the soul is not directly cognizant of the means of motion—muscles and nerves—nor of the manner in which they may be made use of—the nature of the propelling force to be communicated to the nerves or the contractility of the muscles. It can do nothing more than bring about certain states in itself, in the expectation that the connection of the organism will attach to these the initiation of a particular movement. It does not itself carry out the operation, but in a manner to it unknown the vital mechanism executes its commands. But at least it must be able to give these commands, it must not only find in itself a reason for willing a particular movement, but also be able to produce the inner state whence the latter springs. Now, were the soul contained in a body that never moved spontaneously, whence would it get the ideas that it was moveable, that movements were of use, that this movement can be produced by one inner state, that by another, of the soul's individual being? Evidently it is not only necessary that the body should move of itself, in obedience to its own stimuli, in order that the soul may take note of its capacity of change, and learn what impression motions make on itself, but no less necessary that the external stimulus should of itself with mechanical certainty excite in the body such movements as, under the actual circumstances, are adapted to protect life, to adjust a disturbance, or to satisfy a craving. The soul, ignorant of all these relations, could not make a correct guess, and, were not at all events a hint given, even experience would either never teach it to act purposively, at any rate not before a long series of mishaps had undermined the

constitution of the organism. For certainly the latter would have small chance of preservation if the soul's sagacity had at each moment to discover and apply the means of escape from impending disturbances; the sole condition of safety is that at least to a certain extent the action required should flow as a necessary consequence from the impression of the circumstances themselves.

While incapable of devising, the soul will, on the other hand, be quite capable of improving this mechanism; after having observed what movement, with what favourable result, and what direct impression on itself follows any stimulus, it will not require subsequently to wait for the actual experience of the stimulus. Its image recollected or perceived at a distance, nay, even an image not of it, but of a similar stimulus, will awaken in the soul the idea of the impression, and with it also an involuntary impulse to the reproduction of the movement. If at first, then, the soul looked on merely as an idle spectator at the purposive actions by which the organic mechanism protects the security of its seat, it is afterwards obliged for them to the mechanism, seeing that it now applies its manifold powers—of retaining in remembrance what is past, of anticipating the future from analogy, of detecting similarity under superficial difference, of improving upon involuntary actions by reference to the end aimed at—to bringing to refinement and perfection that chain of communication between stimuli and reactions which, though skilfully constructed, does not at first correspond to all the needs of life. The slowness with which the young human being gains control over his limbs, taken in connection with the stamp of completeness and individuality impressed on that control to which in the course of his development he may attain, shows how important here is the co-operative and ennobling influence of the soul: while the exceedingly short space of time usually required by the new-born animal in order to become expert in the class of movements of its species, and the often comical uniformity with which the young creatures exhibit the peculiarities of these move-

ments without any individual distinctions, prove that here, on the contrary, a close and regular connection is at an early period established between the impressions of the general sense and the movements in question.

If we observe the aimless, sportive movements of young animals and of children, we must be struck by the fact how rarely—nay, hardly ever without special illness—single, unconnected, meaningless convulsive starts or thrills occur among them. And yet one might have expected such from the numberless throng of casual impressions by which at every moment of their course the motor nerves and the muscles are liable to be affected. But they do not appear, on the contrary, even the most hesitating and awkward movements that fall under our observation, already show traces of the simultaneous and purposive action of connected groups of muscles. We may lay it down as a fact attested by observation, that in the young organism it is difficult for accidental stimuli of whatever kind to excite isolated and unconnected fragments of motion, whereas it is easy to call forth coherent groups of movements. The former might perhaps take place, but the latter is not conceivable without a central organ, in which the single motor nerve-filaments are so arranged together and interwined that a single stimulus affecting a particular point at once excites a number of fibres to accordant movement. The brain and even the spinal cord have alike doubtless among other offices that of such a central organ, and though we would hardly undertake definitely to describe its structure *à priori*, merely from the requirements of life, we can yet conjecture one at least of its characteristics with sufficient probability, namely, the constant entwinement of afferent sensory fibres in the tissue of the motor fibres.

The primary function of a motor central organ would be to carry into execution the movements of the body in general, which are rendered possible, according to the respective characters of different species, by the structure of the limbs. For this it would be sufficient that some internal stimulus—

were it only of the circulation of the blood—should alternately or continuously excite the elements of the central organ; we would then see the elements of all movement—walking, swimming, flying, and the like—take place with mechanical certainty and regularity. But the animal is endowed with all these capabilities of movement that it may use them in a resisting world, and it must be possible to vary them in the utmost detail in accordance with the varying external circumstances under which they are to be practised. Now, if the office of special sensory fibres is exclusively to receive and to convey impressions of the varying condition of the several parts, we must expect to find in the central organ sensory and motor fibres in contact with one another at a number of points. Any slight want of balance in the body will then produce (by the new impression which it transmits through the former to the latter) a reaction fitted to restore equilibrium, and any obstacle will cause at least the beginning of a purposive avoidance. The same connection we shall further find made use of where an unusual stimulus coming from without calls for a particular movement, partly of defence, partly of utilization of its impression. Here, too, we may suppose it to be the arrangement best fitted to secure life, that, without waiting for the soul's deliberate planning, the stimulus immediately sets free the purposive reaction with mechanical necessity. We observe numerous movements of this kind in our own bodies, such as convulsive fits of coughing, sneezing, vomiting, by which, without our being aware of the *modus operandi*, pernicious stimuli are removed; and such have been observed in the trunks of decapitated animals, *i.e.* under circumstances that make it most natural to assume that the soul has no share in them.

Now, so long as these movements do not otherwise belie their mechanical origin—*i.e.* so long as they do not appear without external or traceable internal physical excitation, and (without respect to those outward circumstances which cannot make themselves felt by means of physical impressions) are always alike when produced by the same kind of stimulus—so

long any amount of purposive variety in their combination would in fact form no reason for inferring secret co-operation on the part of the soul. But much else may render that inference plausible, without actually making it valid. It is not improbable—nay, on the contrary, the probabilities are in favour of the supposition—that not merely the place but also the kind of the exciting stimulus helps to determine the form assumed by the movement excited. Little attention has hitherto been paid to this point; psychologists have been content to note the fact that, for example, in a decapitated frog the irritation of a particular spot in the head is followed by a movement of the leg in that direction, and this has given rise to the idea that the sensory nerve of a particular point in the head transfers its stimulations, of whatever kind they may be, always in the same manner to motor nerves, and that consequently an identical movement always follows. If, on the other hand, we suppose (what is possible) that the transference takes places differently, *i.e.* varies alike in amount and in the motor nerves to which it passes, when the stimulation to be conveyed is different, this would introduce into these reflex movements, as they are usually designated, the appearance of a deliberate choice, without the soul having really any part in them.

To this extent the harmony of the movements would depend on the purposive nature of the permanent formation of the central organ. But the familiar phænomena of practice and habit, the experience that movements the performance of which was at first attended with great difficulty may become like second nature to us, afford convincing evidence that the primary formation of organs can in the course of life be developed to still greater degrees of efficiency. For from noticing how frequently particular traits of acquired grace and refinement of bearing and movement are transmitted by inheritance, we may conclude that habits are not formed without causing and leaving behind particular physical changes in the corporeal organs. Many purposive reactions that in themselves were

not attached by the permanent plan of the organism to a particular external irritation, can be made to follow it by this superinduced tendency of the nervous system; then the organ develops an intelligence of action which did not originally belong to it, and is not the immediate act of an indwelling soul, but only the acquired physical habit which it owes to its former intercourse with the soul. For it could not, of course, learn these forms of reaction by itself, the intervening activity of the soul must have annexed the reaction to the irritation of the organ; but what the corporeal organization could not devise it can retain, after continued repetition has, by means of material traces left behind, set the stamp of a physical necessity on the connection between the impression made and the consequent change. Although, then, we find the trunk of decapitated frogs sometimes respond to external irritation by a kind of movement that seems not to be sufficiently accounted for by the physical impression actually communicated at the moment to the nervous system, it is nevertheless not necessary to suppose that the trunk contains a fragment of the soul, whose deliberation supplied the perceived stimulus with the intermediate links required for the adequate establishment of the purposive movement.

Whatever may be the observed facts, we cannot permit of their being explained by this hypothesis, as its inherent impossibility seems to us evident. We may with some shadow of intelligibility speak of a divisible soul, if we are thinking merely of the still undeveloped predisposition to mental life, which seems to pervade the body like a homogeneous whole; but if the divided subject be supposed to be the already developed consciousness with its remembrances and experiences, and the dexterities and knowledge acquired by means of these, we could hardly have so much as any clear idea of what it is we were asking. And yet only a divisibility of the latter kind would account for the phænomena; for the capacity of acting in accordance with circumstances would be secured for the headless trunk not a whit more easily by means of an intelligence possessing no experience than

of a purely physical mechanism as first formed. These observations seem to yield a choice between only two views. Either we must regard the purposive character of such movements as are frequently performed by headless trunks of cold-blooded animals as the result of intelligence, but of an intelligence not now present in the animal, but belonging to that one soul with whose seat the trunk was formerly in connection, and from whose deliberations proceed habits of purposive action in its central organ, that continue even after all connection between it and the soul has been done away with. Or if, yielding (mistakenly, as it appears to me) to the impression of complete vitality created no doubt by these movements, we conclude that they must be accounted for not by any echo, but by the direct presence of intelligence, there is nothing to prevent us from admitting in the spinal cord a plurality of individual beings of the nature of souls, each of which might have an intelligence for itself. During life the one soul, which we call that of the animal, would by its more favourable position or the greater energy of its nature control all the other partial souls, and, in virtue of their mutual connection with one another, all would participate in the experiences of the whole animal, and draw from them advantage. The decapitated animal having lost the influence of its chief soul, the souls of the parts could still manifest themselves according to the nature of the stimuli affecting their part of the body, and the former experiences, which each unquestionably could have only in connection with the head and its organs of sense, but which, when once possessed, are retained in memory, would now enable them to adapt their action to external circumstances.

§ 7. In the admission of this central organ for the regulation of movements, we think we have come to the end of the immediate helps that must be required from the bodily structure for the soul's operations. They are all directed towards rendering possible, on the one hand, the combination of external impressions into a spatial arrangement of perception; on the other, the development of inner

states to a purposive connection of spatial movements. On the contrary, all the large amount of labour by which the intelligence systematizes the matter of sense-impressions into a single rational conception of things, we have had to leave exclusively to the unbodied energy of the soul The tasks which we impose on the brain will seem, then, much simpler than the manifold functions that phrenologists require of it in their search for, and alleged discovery of, special organs for many of the most complex manifestations of mind. However unsafe these efforts may be, the unprejudiced observer cannot dismiss them as groundless, and they are not liable to every charge brought against them. Without doubt, it is not necessary to suppose that all souls in themselves of one kind, owe their individual character to the special development of their corporeal organs; on the contrary, there is no obstacle in the way of the belief that each one is by an originally peculiar character determined to a unique development of the general capacities which it shares with all others as the common foundation of mental life. If, however, we hesitate to set down any part whatever of predetermination to the peculiar character and individuality of the corporeal frame, we forget that all such efforts to divorce mental life from bodily conditions are made fruitless by other indisputable facts. We have not chosen or bestowed on ourselves, our sex, or our people, or the time of our birth, or the social circumstances of our life—neither our poverty nor the advantages of our wealth; so long as we see such relations often bring to naught the hope of mental development, we have little reason to dispute very vehemently the dependence of the mind on its body While Materialism offers no prospect of a higher and more satisfactory view of things, the assertion of an independent soul does not solve the dark and depressing riddles so often brought before us by the course of the world and the destinies of life.

But the admission of special organs, distributed over different tracts of the brain, for particular higher mental

faculties, has after all little probability on its side. We could neither form any idea of the kind of advantage offered by it, nor would we find that it promotes the mutual action and reaction constantly going on between all the psychic energies; lastly, even if we gave up the search for explanation, the mere collecting of facts in proof of a connection between a particular cerebral formation and particular intellectual operations, would be found to be attended with extraordinary difficulties. It would presuppose in the inquirer that complete and penetrating knowledge of human nature that would at once not only detect all the hidden tendencies of an individual character, but also unravel the far more secret tissue of antecedents from which they flowed as finished results. For unquestionably the form in which a man's complete character appears to an observer, has been moulded not only by the innate disposition, but also by the succession and peculiar character of the external circumstances in which it was formed. It need hardly be mentioned how difficult must be the redistribution of the observed characteristics to these various causes, and how much risk there is of interpreting as direct results of a corporeal organization effects of education, of way of life, and of disease. It might be easier for unprejudiced observation (though at most in the case of such capabilities as may readily be shown to be present, as are frequently transmitted by inheritance, and hardly to any perceptible degree to be supplied by practice) to establish a relation of some sort between these and particular developments of the brain and its bony case. Thus sense of locality and of colour, musical genius, perhaps a turn for mathematics in general, and ingenious manual dexterity, may be found to have corporeal foundations, while as regards the subtler peculiarities of mental individuality we entertain hardly any such expectation.

And yet even these may be largely under the influence of the bodily life, though otherwise than by the assignment of a special organ to each one. The immense differences in the amount and peculiar character of mental development

presented by mankind more than by any other species of animals, seem mostly to be derived from distinctions in a universal psychic nature, closely related to what we are in the habit of calling temperament. In all individuals mental capacities have an insignificant germ, and, rapid as is their growth in some cases, they are yet invariably developed by means of the registration and summation of individual acts, each of which becomes a means for the performance of a subsequent greater one. The transition from one to another is effected—with greater or less rapidity—not only by the keenness of the original impression of the perceptions, but still more by the liveliness of the feelings thereto attached, by the activity of the organic life and the mobility of the general sense that fluctuates with its changes, by variety of moods and abundance of internal excitations suggesting certain series of thoughts and breaking off others; on all these influences doubtless are dependent not only the rapidity or tardiness of the general mental development, but also many abiding peculiarities of the direction followed by its course. The instrumentality of these influences of the body is in great part not particular organs, but its general structure; varying degrees of constitutional vigour form a peculiarly coloured background to the mind's action, and, confirmed as this is by the experience of disease, we must allow to the chemical composition of the blood, by whose stimulative force nervous activity is excited, a considerable influence on the amount and direction of intellectual energy.

Yet in another respect the formation of the central organs may have a bearing also on this. It is chiefly the cerebral hemispheres that in the ascending scale of animal life we find increasing in bulk as the mental development of the species becomes greater, and a consensus of experience leaves hardly any doubt that in man, in whom they are most fully developed, the amount of intellectual life depends on their structure being more or less complete. But these parts of the brain do not look like a row of single severally complete organs, composed of a great number of fibres with inter-

polated ganglionic cells; they possess a far more uniform and monotonous structure than the internal and lower parts which assume very peculiar forms, above and around which they are arched as a thick membranous case marked deeply with very many furrows. It is not a demonstrable fact, but may be taken as a credible conjecture, that these more definitely shaped regions of the brain comprise the organs of mental life, which we have already found it necessary to admit, and which are characterized by an unvarying and peculiar form of working; that, on the other hand, the external mass of the hemispheres forms an apparatus of general use, designed in part as the means of reproduction for the nervous force that acts in the organs, in part to regulate their capacity of stimulation, in part, lastly, as we hinted when considering the feelings, to afford a kind of resonance by which there may be communicated to the matter of perception a certain amount of feeling, and to the growing volitional impetus a particular strength of motive power. Only in this sense of an indirect and yet very powerful influence on the mental life, would we concede to these parts of the brain the name of an organ of intelligence, of emotion, or of volition.

We have thus delineated the various forms in which the body exhibits itself as a means of promoting and assisting mental development. In the researches of physical science this side of the matter is wont to be exclusively presented; but religious considerations usually lead to the other being brought forward; they beget in us a tendency to look on the body as to some extent a barrier hindering the soul's free development. There is nothing against the possibility of this new view; as we find that in disease unusual fluctuations of the bodily life clog the mind's activity, so also the abiding healthy connection between the two may have a retarding effect on the inward development. Experience, however, has but a poor array of facts pointing in this direction, and in cases of bodily illness that somewhat relax the bond between the two natures, we never find a new and unexpected burst of psychic life occur. This assertion is not

weakened by an appeal to the marvels of somnambulism and clairvoyance. After attention has been so often aroused and disappointed by these phænomena, after there has been so much clairvoyance without the slightest permanent advantage for the progress of mankind: after these experiences, it might be supposed that interest in all this had also become clairvoyant and had recognised it for what it is, viz. peculiarly intensified morbid processes, the like of which in less intensity are offered by daily experience. Even ordinary intoxication shows us that one-sided animation of consciousness that is devoid of any clear and comprehensive survey of its content and of the external environment, while there appear all sorts of impulses to pathetic rhythmical gesture —and delight, and along with it dexterity, in daring experiments, all of which is prevented in the sober man partly by the inferior liveliness of his nervous actions and the lower tone of his general sense, partly by a decorous regard to propriety and the usages of life. In like manner, a particularly exciting train of thought that flows on in sleep may be then more easily carried out, while the numberless distracting impressions of the outer world are absent, and the somnambulist in his half-waking consciousness may finish the solution of a problem that awake he failed to work out. But, at the same time, we do not forget that it is properly the powers, the knowledge, in short, the whole acquisition of waking life that made this achievement possible for the sleeper. As the consciousness of danger declines, the boldness of the adventurer increases; as regard to surroundings ceases, the experimenter's audacity waxes; and as all disturbing influences are warded off, inner concentration and harmonious energy advance, without anything really new and unexpected taking the place of the familiar. Thus the human life which is the subject of our observation, is throughout bound to reciprocal action with the body, but the greater beauty of development to which the soul, freed from this bond, may rise, we shall not prematurely guess at, before the bond has been torn asunder.

# CHAPTER IV.

## LIFE IN MATTER.

The Constant Illusion of Sense—Impossibility of Things being copied in our Perception—The Special and Higher Worth of Sense—The Inner Activity of Things—Matter the Manifestation of something Supersensuous—Concerning the Possibility of Extended Beings—Animation of the whole World—Contrast between Body and Soul not retracted—Justification of Plurality as against Unity.

§ 1. HOW many objections may silently have attended every step of our statement! And these not such alone as found occasions of dissent in the several difficulties of the questions which we have hurried through, and as may be answered, not by us, but by more extended scientific research; nay more, we must expect a thoroughgoing revolt of the heart against the coldness of a theory that transforms all the beauty and animation of forms into a rigid physico-psychical mechanism. We have had to direct many attacks against the creative, self-determined development of corporeal life, against the permeation of the body by the mind, against the truth of sensation and the spontaneity of movement; in fact, we have made questionable all the characteristics that contain for naive feeling the essence of all the poetry of life. We cannot therefore wonder at the steadfastness with which the advocates of an emotional view will refuse to accept as a higher conception of things the most convincing statements on our side; the more necessary, therefore, is the attempt to prove the harmlessness of our theory, which, where it compels us to sacrifice opinions in which we seem to surrender a part of ourselves, yet by what it gives in exchange makes it possible for us to regain our lost content.

Naive consciousness always takes sensation to be the per-

ception of a complete, externally-existing, real thing. It believes that the world lies around us illuminated by its own radiance, and outside of us tones and odours cross and meet one another in the immeasurable space that plays in the colours belonging to things. Our senses sometimes close themselves against this continual abundance, and confine us to the course of our inner life; sometimes they open like doors to the arriving stimulus, to receive it as it is in all its grace or ugliness. No doubt disturbs the assurance of this belief, and even the illusions of the senses, insignificant in comparison with the preponderance of consentient experience, do not shake the assurance that we here everywhere look into an actual world that does not cease to be as it appears to us even when our attention is not turned to it. The brightness of the stars seen by the night-watcher will, he hopes, continue to shine over him in slumber; tones and perfumes, unheard and unsmelt, will be fragrant and harmonious afterwards as before; nothing of the sensible world will perish save the accidental perception of it which consciousness formerly possessed. And this full confidence in the reality of sense-perception not only is harmless, but a deep need urges men to ardent resistance of any attempt to deprive it of the full reality of its phænomena. It must continue to be the inherent sweetness of the objects that comes to us in sweet tastes and fragrant odours, the very soul of things that speaks to us in sound; the splendour of colour would grow pale to us if we could not look on its radiance as the revelation of another being that, though strange to us, becomes so transparent to us that we can become sympathetically absorbed into and united with its nature. The best part of the significance of the things of sense would be lost if this lucid reality of the objects of sensation were taken from us; the same longing that in higher stages of mental life seeks completion in another, here in sensation seeks to preserve the dreamy enjoyment of being completely permeated by what is alien. And not only must what relates to sense somehow cleave to things themselves; on the contrary, we are drawn by this longing to look on

sensible properties as acts of that in which we find them. Not merely are things coloured, but it is their living active shining that we view in their colours; their taste, their smell, are actions in which their inmost being comes toward ours, and discloses that which, within the externally-bounded space filled by their forms, forms the true reality of their existence.

Not always indeed in daily life is this earnestness in regard to sensation alike present; other interests, with the manifold reflections which they bring with them, make us carelessly take and forget many sense-perceptions; what would interest us in detail, makes on our absently-glancing eye an indifferent or a repulsive total impression; we think we see unclean chaotic masses, where the assisted eye often discovers regular crystallization and traces of an ornamental formative power. Thus colours become to us indifferent in the artificial forms of our utensils; but if we look at the smallest particles of the natural substance that our handicraft has forced into a form to it indifferent, to supply the necessities of life, how immediately we again come under the power of the spell of sense in the rich depth and brilliant splendour of colours, in the marvellous play of broken lights that iridescent hover over the finest cracks and stripes of the surfaces! Then we have in miniature the blossoming of that same fair mystery that is wont to excite our senses in the formless vapoury colouring of the sky, and the mysterious shapes of flowers. The many sounds that animate the earth blend to the preoccupied or inattentive ear into mere noise; but the thoughtful listening that discriminates them recognises in the several voices of Nature utterances in which, though they are untranslatable into any other tongue, yet a mysterious inner nature of things speaks to us with all distinctness. Only the accidental combinations in which we are accustomed to find many elements of sense, the arbitrary forms in which we mould things for our own uses, make the original significance of sense-perceptions temporarily disappear for us; but it is always felt anew when we give ourselves up to, or seek out, simple impressions, or when with perfected art

we combine things that, by the elective affinities of their nature, crave to be united. Then we again recognise the claim made by our sensuous nature to give us insight into the inmost living essence of an alien but true reality that in its alienation faces us now as a friend and now as a foe.

And of this belief the mechanical view of Nature seeks to deprive us, or at least seems inclined to do so. It teaches us that sensations are the peculiar product of the soul, suggested indeed by outward impressions, but resembling neither these nor the things from which they proceed: that the world about us has in itself neither darkness nor light, neither sound nor stillness, but, on the contrary, is wholly out of relation either to light or to sound, that things have no smell or taste. Nay, what seemed most unquestionably to warrant the reality of the external world—hardness, softness, resistance—are, according to it, forms of sensation in which we are conscious merely of our own internal states. Nothing really fills space save an indefinite host of myriad atoms vibrating towards one another in the most varied forms of motion. And neither atoms nor motions, as such, fall under our observation; both are only assumptions presupposed—but necessarily presupposed—in the inferential calculation of phænomena. These simple elements cannot themselves be described as they are, absolutely devoid of sensible properties, which are the only material out of which we can make distinct descriptions; their motions we can indeed indicate, but in themselves they are never objects of our actual perception. In all perception nothing is directly in our consciousness but that which it has itself created; only by subsequent reflection on the conditions under which our sensations originate are we by degrees carried back to assume causes that in themselves remain for ever inaccessible to observation. Thus, then, the reality of the external world is utterly severed from our senses, and all the variety of the perceived world becomes but a phænomenon of our own mind, which we indeed throw back upon things as if it were their natural form and illumination, but which no more belongs to or proceeds from them than do the reflections which experience

suggests to us cling ready-made to the objects with which we connect them.

Vain attempts have been made to defend the reality of sense-phænomena against this doctrine. It had to be allowed that those modes of motion presupposed in calculations are really the conditions that give rise to our sensations; but proof was lacking and was demanded that these are not brought to a second birth in consciousness by what, on the one hand, is certainly a product of our mental nature, but on the other is also present in the outer world itself and in the stimuli. Undulations of the luminous æther and vibrating waves of sound, it was asserted, traverse space, and the mechanical mode of motion is but the external means by which they stimulate eye and ear to copy the actually existing sensible content. But proof of the contrary should not have been expected from mechanical physics, as a little reflection might of itself have sufficed to supply it. We not only know colour and sound solely through sensation, but we would be wholly unable to say what idea we attached to them if they were not perceived by our own or some other consciousness. As velocity is involved in motion, and not in itself something that might be added to motion, so all sensations have but one place of existence—consciousness, and one kind of existence — that of a state, passive or active, of consciousness. Even before a mechanical theory had detected in the modes of motion of external elements the causes whence our sensations originate, reflection might have discovered that at all events they are conceivable only as such states of the mind and its knowledge, and that any attempt must fail which maintains that what shines in light or sounds in tones is a property of things or an event taking place between them, somewhere outside of sentient beings. It is vain to call the eye *sun-like*, as if light were before it is seen, and as if the eye needed a special occult power to copy what on the contrary it has itself produced; fruitless are all mystic efforts to restore to the intuitions of sense, by means of a secret identity of mind with things, a reality outside ourselves.

But however fruitless they may be, they will undoubtedly be ever and anon renewed by that strange susceptibility that aims not at fulfilling its perhaps justifiable wishes by actively setting about the removal of difficulties, but only at cheating them by a facile surrender to the self-contradictory.

§ 2. Must we then really give up all these claims, which to naive consciousness seemed so well-grounded? Must all the glory revealed by the senses be changed into an illusion of our mind, that, incompetent to discern the true nature of things, consoles itself by creating a show without objective validity of any kind? If it were at least possible to look on sensations as translating, so that the import can be recognised, the properties of things into a language familiar to the mind, we would be at ease and make up our minds to the inevitable loss of clearness suffered by the matter of existence in passing into knowledge. But what have vibrations of the æther to do with light? what have undulations of condensation in the atmosphere to do with tones? The physical cause and the sensation following it are here on so wholly different lines, that in the latter we do not find even a faint echo of the former, but a new phænomenon without a shadow of resemblance comes into view within us. How ill-fitted therefore is sentience for the performance of its task—to reflect the nature of things, or at least the veritable outside of their being! And consequently how little trustworthy becomes the hope that knowledge will penetrate their inmost being! Beset on all sides by error, we can call our sense-perception nothing else than a tissue of delusions of the senses.

If these complaints are natural, it is assuredly, however, not the spirit of mechanical investigation that has given occasion to them. Physical science, starting from imperceptible elements, tracing their manifold motions, and seeking to determine the impression produced by the transmission of these disturbances on the sensitive nerves of the living body, and through them on the soul, regards this connection simply as a causal chain of processes, and thinks it no more surprising here than elsewhere that after so many transitions of

efficacy from one agent to another, the final effect, the quality of the conscious sensation itself, is wholly unlike the primary occasioning causes. Why, it would be entitled to ask, do you require anything different? Why do you suppose it to be the duty of your senses to present the things by which they are affected as they really are, and not contrariwise as they do actually present them? Why should they bring into consciousness the first causes instead of the last effect? and are not the shimmer and the tone which they transmit to you, inasmuch as they are transmitted, no less than the unseen vibrations of the æther and the atmosphere a fact, having with them an equal right to be recognised? If you regret the loss of the splendour of the world of sense, what prevents you from retaining it, and rejoicing that there are in the world beings whose inner nature can be stirred by the impetus of these modes of motion to so fair reactions, to the unfolding of a realm of colour and sound? Finally, what urges you to penetrate to the far less pleasing core, to shatter the fair outside, and to long for a sight of the skeleton framework whose rigidity is veiled by its soft outlines?

There is indeed every reason to test the apparently self-evident assumption, that the sole office of sentience and of all knowledge is to present to consciousness the forms of things as they are. The objection will doubtfully be brought forward against us—to what purpose is such a doubt? Must not the office of cognition be to know? But this objection is only another instance of that precipitation to which we are all so prone. For only in the perception that our consciousness contains a manifold world of ideas, in whose production we are dependent on unknown conditions lying outside ourselves, have we an undeniable fact that must form the starting-point of our discussion. This play of ideas, regular in itself and connected with the sphere of these unknown conditions, limns in outlines agreeing for different minds the picture of a common external world, in which they meet one another for mutual transactions and communications. The thought of each individual should therefore be true, that is, in the

sense of presenting to each the same world as is showed to others, without any individual illusion shutting us out from communion with other minds, by cheating us with a series of external points of relation, at which we can never come into contact with the activity of others, because they exist for none but ourselves. At the same time, it remains wholly undecided whether the world that is uniformly presented to each of us in thought, is for all alike a consistent error, or whether what we think we see does in fact present the very form of the outer world, on whose influences we feel that we are dependent.

Partly the influence of daily life, partly the peculiar interest of science, the express object of whose researches is accurate acquaintance with things, have accustomed us to estimate the worth of our ideas and sensations by the accuracy with which they represent the nature of objects. We forget that the occurrence of these internal phænomena within us is quite as much a pregnant fact as the existence of the source whence they spring; and after we have once become used to apply to them the name cognition, and thereby tacitly to put them into necessary relation to something external, we are apt to contrast being and knowing as if the former comprised the whole reality of the universe, and the latter had only to be a good or bad cognitive repetition of this complete universe. But the fact that the influence of the existent and of its changes causes within rational beings a world of sensation to come into being, is no insignificant addition to the connection of things, as if the import of all existence and action would be complete without it; on the contrary, it is itself one of the greatest, if not the greatest of all events, whose depth and meaning make all else sink into significance, that could take place among the constituents of the universe. As we prize a blossom for its brilliance of colour and its fragrance, without requiring of it to exhibit a representation of the form of its roots, so we must prize this inner world of sensation for its own beauty and significance, without measuring its value by the fidelity with which it reproduces its less important foundation.

For why, in fact, should we not reverse this whole relation, to which a crude mode of conception has accustomed us? Instead of setting up the external as the goal to which all the efforts of our sensation are to be directed, why should we not rather look upon the splendour of light and sound as the end which all those dispositions of the external world, whose obscurity we deplore, are designed to realize? What pleases us in the drama that we see developed before us on the stage, is the poetical Idea and its inherent beauty; no one would expect to enhance this enjoyment or discern a profounder truth if he could indulge in an examination of the machinery that effects the changes of scenery and illumination; no one, while taking in the meaning of the spoken words, desires a distinct knowledge of the physical processes by which the organism of the actors produces the resonant vibrations of their voices, or initiates the motion of their expressive gestures. The course of the universe is such a drama; its essential truth is the meaning set forth so as to be intelligible to the spirit; but the other, which we would often so fain know, and in which, deceived by prejudice, we first of all seek the true being of things, is nothing else than the framework on which rests the alone momentous actuality of the fair appearance. Instead of complaining that in sensation the real properties of things outside us are not represented, we should rejoice that something so much greater and fairer comes in its place; we would not gain but lose if we had to sacrifice the radiant splendour of colour and light, the power and sweetness of tones, the fragrance of odours, in order to be consoled with receiving in exchange for this vanished world of utmost beauty the most accurate acquaintance with vibrations moving with more or less velocity in this or that direction. Besides, it is within our power to attain to this knowledge by scientific research, and actually to reach those colourless foundations of the sensible world over which actual sensation spreads this deluding, or, as we would be more correct to say, transfiguring radiance. Let us therefore cease to lament as if the reality of things escaped our apprehension; on the-

contrary, it consists in that as which they appear to us, and all that they are before they are made manifest to us is the mediating preparation for this final realization of their very being. The beauty of colours and tones, warmth and fragrance, are what Nature in itself strives to produce and express, but cannot do so by itself; for this it needs as its last and noblest instrument, the sentient mind that alone can put into words its mute striving, and in the glory of sentient intuition set forth in luminous actuality what all the motions and gestures of the external world were vainly endeavouring to express.

But however great be the importance which we thus ascribe to sensation in the order of the universe, we still fear we may not thereby have wholly put an end to the old complaints. For the advantage of enjoyment falls too partially on the side of the world of intelligence, over against which stands all Nature as merely the lifeless, even if mobile, framework of means by which the beauty of the world of sense may be produced in something else, not in itself. Have things by their motions, while themselves destitute of enjoyment, only to minister to souls as mere stimuli to this inner life? Has the one half of creation, that which we comprise under the name of the material world, no function whatever save that of serving the other half, the realm of mind, and are we not justified in longing to find the lustre of sense in that also whence we seem always to derive it? Perhaps now this longing alone would not suffice as the foundation of a new moulding of our theories; assuming, however, that a more thorough investigation added to the strength of this foundation, we could yet assuredly find in things themselves the reality of all content of sensation only on supposition of the conditions on which it is conceivable by us. The content of sensation, light and colour, tone and odour, can be understood only as modes or states of an intuition or cognition; if they are to be phænomena not merely internal in ourselves but inherent in things, things must be capable of appearing to themselves and of producing these in their own sensation.

To this inference that sheds over all existence the lustre of vital animation, our craving would have resolutely to advance; in this reality within things alone would it find a possible basis for the reality of sense outside us; on the other hand, all efforts would be vain to annex what is conceivable only as an internal state of sentience to insentient beings as an external property.

We thus find ourselves here brought back to an idea which we met in our first discussions concerning the nature of the soul, to that hypothesis of a double existence of all matter—outwardly in accordance with the well-known physical properties, inwardly stirred by mental activity. We refused then to apply this idea, according to which the whole of the living body must be conceived as being the sentient soul, or the unity of our consciousness must be explained by the co-operation of many elements. We recognised that the latter is thinkable not as a resultant of the reciprocal action of a plurality of beings, but only as the manifestation of an indivisible being, and that a complete fusion of the mental energy with the whole of the body, which does not date from eternity, but during the process of growth has been formed by most heterogeneous contributions from the external world, is in opposition alike to universal possibilities and to the most definite facts of experience. We cannot think differently now, and any attempt to conceive of matter as animated must of necessity be combined with another, viz. to prove that the form in which we think we immediately apprehend matter, infinitely divisible extension, is an illusion, having as its foundation a multitude of indivisible beings, whose definition contains only supersensible properties. Many threads of our discussion that have hitherto lain apart and unfinished now run together and draw near their termination; may we be permitted, as a means of fully uniting them, once more and emphatically to direct attention to the conception of matter which we have hitherto accepted, contenting ourselves simply with repelling its aggressions across its own borders, and from which we must now at last seek to withdraw even that

which seemed to come under its peculiar sway. For, while earlier thinkers believed that the mental life was derived from the efficiency of matter as a simple and self-evident corollary, we now purpose to vindicate the exclusive and original reality of the mental sphere, and to show that it makes Nature comprehensible, and not *vice versa*.

The general reflections with which we prefaced the sketch of the bodily life convinced us that the manifold forms and events set before us *en bloc* in experience can be explained only by the counter-working of many distinct and independent centres of exeunt and ineunt forces. This hypothesis of an internal systematization of apparently homogeneous masses is directly confirmed in many cases by the observations of the assisted eye, and a more searching investigation into all the perplexing phænomena presented by the more elaborately constructed even of inanimate bodies, and by their consequent peculiarities of action, would find itself inevitably compelled to admit this organization of matter out of single efficient parts far beyond the limits of possible perception. But the final step of denying to the infinitesimal atoms to which we are thus led back any extension, in space, form, or size, was then merely a possible, not yet a necessary, termination of that theory. Although, however, it was admissible in respect of physical science to leave this question undecided, we are constrained by the conception that would preserve even for matter intelligent life or something analogous, to seek a definite answer to it.

First of all, in opposition to the current doctrine that matter is extended, impenetrable, imperishable, and offers resistance, we must make the counter assertion that these properties and modes of action have no subject: we are not told *what* it is that is extended, impenetrable, and imperishable, and what constrains these various properties, which in themselves have no necessary connection with one another, to appear in combination. Should the supporters of the doctrine seek to cover this defect by the acknowledgment that the true essence of matter consists of an indescribable supersensible

something, from whose nature those very properties and their combination necessarily and permanently follow, we would have to reply that, while the other predicates are compatible with the notion of something existent, that of extension is not, and yet by extension it is that matter is thought to be essentially distinguished from all else existent.

For he who speaks of the extension of matter is not content to find in every point of the space that his eye can scan, the operative sway, the power, or the spiritual presence of a substance that yet is itself present only at a single point; on the contrary, he maintains that every infinitesimal part of this space is perpetually filled by it just as much as it would fill that selected point. And at the same time, on this theory, each single point of filled space is also an independent abiding centre of forces, and the annihilation of all the others could not prevent it from continuing its working in harmony with the nature of the portion of reality which it contains. This conception thus leads to an infinite divisibility of the extended, but along with that it cannot, it appears to me, get rid of the idea of an actual division For that which, after its separation from a whole, can undisturbed continue its working with the degree of force corresponding to its size, must in the whole have had an independent existence, forming with other equally independent parts a regular sum, but not a veritable unit. Or *vice versâ*, what can be sundered into a number of wholly independent parts, and can without any alteration of its nature let go certain parts and admit others not previously belonging to it, cannot, with such indifference to increase or diminution, be conceived as a single self-complete being, but only as a combination of what were originally a plurality of beings. In contrast to this external multiplicity may be set an inner unity of the many; it may be supposed that all these parts are intimately connected, by homogeneity of nature, by a common import, and by joint destination to a common development and mode of action: but when we abstract from what they have been and what they shall be, when we look simply at what they are, none of these higher unities

can blind us to the fact that primarily they do indisputably form a plurality. Whatever other ideas may be entertained in regard to the internality of the extended, we insist upon it that its externality be not on account of these put into the background. And this externality, *i.e.* extension, will never be thinkable unless we suppose single points which are distinguishable, outside one another, divided from one another by intervals, and which lastly, by the action of their forces, or by their mutual influences in general, determine for one another the places they occupy. This distinguishability of a number of points is no mere corollary of extension, but that which constitutes its very notion; the name extension denotes a property implying solely mutual relations in a manifold plurality, reciprocal action of several individuals.

Any attempt to apprehend extension as the predicate not of a system of beings but of a single element, must necessarily involve the other assertion, that the parts of this element, which must be distinguishable in order to form a spatial magnitude, cannot attain to free and independent existence by division. But experience confirms—in the main at least—the separability of things distinguishable; only in the invisibly minute dimensions of atoms might we hope to find both extension and indivisible continuity. And this latter conjecture would help us little. For where, then, would we seek the ground of the fixed extent, neither greater nor less, occupied unalterably by each atom? If we do not find it in the number of the particles which it comprises, where else than in this fact, that the supersensible nature of that which here is really or apparently extended, is adequate to fill this and no greater space, to set up this and no greater indivisible outward form? Thus, even on this theory, the magnitude of extension finally resolves itself into spatial expression for the degree of intensive force, and space is filled, strictly speaking, not by the being but by its efficacy. Let us therefore rather at once acknowledge that extension can no more be the predicate of a being than an eddy or vortex is the mode of motion of a single element; both alike can be conceived only as forms

of relation between many elements. We are accordingly constrained to adhere to that view which formerly showed itself merely as a possible one, and to conceive extended matter as a system of unextended beings that, by their forces, fix one another's position in space, and by the resistance which they offer—as if to the intrusion of a stranger—to any attempt to make them change place, produce the phænomena of impenetrability and the continuous occupation of space.

The tendency to conceive extension as a direct property of things actual, perhaps rests on an idea that we carry by stealth from our personal experience of life into this wholly different sphere of thought. The upholders at least of those theories on which the extension of matter is explained as one of many manifestations in which is revealed a much more comprehensive striving of the creative absolute, a longing for infinite evolution and diffusion, betray in their æsthetic enthusiasm for this form of action their remembrance of the enjoyment bestowed on us human beings by the freedom of unbounded diffusion and expansion of our being. To us the environing space is primarily a barrier and wide extent that we must overleap and traverse; hence to us motion is at once exertion and enjoyment; the former, because we can execute it only by means of the mechanism of our limbs; the latter, because change of position brings the excitement of new perceptions, and the consciousness of the exertion of force through which we have won them. This mood, this sense of added strength and satisfied desire that animates us in traversing great distances, we unconsciously transfer to the general notion of motion. All those enthusiasts who saw in the perpetual motion of the heavenly bodies an object of rapturous devotion, and recognised in it true existence and the eternal activity of the existent, secretly believed that the traversing of these vast spaces was for the bodies an achievement costing a putting forth of vital force of which they themselves were conscious; as the bird rejoices in its flight, so might the planets themselves delightedly feel the impetus of their motion; and as the former with keen eye surveys the changes

in its surroundings, calculating from them how much space it has traversed, so too might these somehow be conscious of the magnitude of the distances they had travelled. Similar associations it is that excite our enthusiasm for the expansion of the absolute and the continuous extension of matter, we accompany it with a feeling of relief from a cramping pressure; and as in drawing a long breath we fancy we directly feel in the expansion of the chest an increase of our vital force, so there lies an obscure remembrance of the pleasurable sensation of such vigorous expansion even in the thought of the space-filling energy that we attribute to matter. And yet a simple consideration would convince us that of all the conditions on which for us the possibility of this pleasure depends, not one exists for unorganized matter; the more inherently extension is supposed to belong to it, the less is it an achievement requiring for its performance any vital exertion; and the expansion of the absolute must be conceived not as the joy of liberation and of passing beyond limits, but exclusively as a falling into a multitude of different points, on whose externality to one another alone all extension depends.

Perhaps we should guard against the charge of having in these remarks stated accessory ideas that here and there creep in as additions of individual fancy, as if they were essential parts of the theory of extended matter. But we see from too many examples how frequently such pleasing remembrances of complete human life do secretly guide the speculations, whose reins are believed to be swayed solely by the purest and most abstract thought; and in this case I really do not know, if it does not pertain to being to be extended, what should induce us so obstinately to seek to attach this property to its inner nature, and to fill wholly with continuous matter the space that might (adequately for the explanation of phænomena) be under the control of supersensible beings with their vital forces. But we might add that our theory may succeed where the other fails; inasmuch as every several being by its reciprocal action with others fixes its own and their place in

space, emits and receives effects, it will, from its position in respect of the total sum of the rest, be capable of receiving also impressions that would not have been secured for the continuously extended by its mere presence and diffusion in space.

§ 3. With this hypothesis of unextended atoms we have removed the only difficulty that could prevent us from giving ourselves up to the thought of an inner mental life pervading all matter. The indivisible unity of each of these simple beings permits us to suppose that in it the impressions reaching it from without are condensed into modes of sensation and enjoyment. All that stirred our interest in the content of sentience may now have a place of objective existence in these beings, and numberless events ascertained, not directly by sensation, but on the circuitous path of scientific investigation, need not now be lost, but may, within the substances in which they occur, be converted into much glow and beauty of perception to us unknown. All pressure and tension undergone by matter, the rest of stable equilibrium and the rending asunder of former connections, all this not only takes place, but also in taking place gives rise to some enjoyment; each several being entwined with varying reciprocal actions into the whole of the world, is, in the words of one of the greatest of our national thinkers, a mirror of the universe, from its place feeling the connection of all things, and representing the special view which it yields to that particular place and standpoint. No part of being is any longer devoid of life and animation; only a certain kind of activity, the motions which adjust the states of the one to those of the other, are twined like an external mechanism through the fulness of the animated creation, conveying to all opportunities and incitements to the various development of the inner life.

In this sketch we indicate a conception of whose essential truth we are convinced, yet to which we can hardly expect any further concession than that, among the dreams of our imagination, it may be one of those which do not contradict actual facts. Nor is its probability any more evident than

s, for, in the intent to satisfy an enthusiastic craving, it offers far more than that craving cares to accept. Who could endure the thought that in the dust trodden by our feet, in the prosaic texture of the cloth that forms our clothing, in the materials shaped into all sorts of utensils in the most arbitrary manner by technical skill, there is everywhere present the fulness of animated life, which we are nothing loath to think of as slumbering in the mysterious outline of the flower, or perhaps even in the regular still form of the crystal? And yet this objection would be merely a repetition of the error that, as we formerly mentioned, leads our sense-perception disparagingly to overlook the beauty of the simple constituents that chance sets before it in unfavourable position and confused blending. The dust is dust to him alone whom it incommodes; the indifferent form of the utensil no more lessens the value of the several elements of which it consists, than a confined social position that represses the outflow of intellectual life destroys the high destiny to which even such oppressed fragments of humanity are called. When we speak of the divine origin and celestial goal of the human soul, we have more cause to cast a sorrowful look on this dust of the spiritual world, whose life often seems to us so fruitless, whose work so purely a failure; we have far less reason to deny an inner life to such insignificant constituents of the outer world, for—uncomely as they may appear to us in their accumulations—they at least everywhere and without shortcoming perform the actions permitted to them by the universal order as modes of expressing their internal state.

In fact, the partiality which we here confess for the idea of a pervading animation of the universe, springs not from any desire now to adopt the belief in the fusion of our soul with the totality of our bodily organization which we formerly rejected It has no connection whatever with the more limited inquiry into the relation between the mental and the corporeal within us, but proceeds from a more general conviction in regard to the essence of things, the grounds of which must be set forth completely and methodically by stricter science. This

would have to show how radically unthinkable and contradictory is the conception to which ordinary life and even computative investigation of the order of things has recourse —the conception of something existent that never had an independent being, but in all its existence was merely a focus of impressions, which were not any matter of its own enjoyment —or a starting-point of effects which, having no foundation in either its knowing or its willing, formed for something else a stimulus to manifold action. We would vainly strive to think of the essence of this being as characterized by any simple and supersensible quality; we would have to rest in the conviction, that even as the sensible qualities, to give up whose objective reality we more easily make up our minds, so all the supersensible qualities which we are fain to contrast as true with the sensible, have likewise their existence only in the consciousness of him who thinks them, and that they could never denote the source of actions and forces which we see proceed from things, and for which we must seek a foundation in their nature. The dislike to look on one part of the cosmos as but a blind and lifeless instrument for the ends of another, the desire to diffuse over all the joy of animation, and to vindicate a universe enjoying at every point throughout its own existence as more perfect than one in which a divided structure shows mentality above an unconscious basis—in this we have but one series of motives inviting us beneath the unruffled surface of matter, behind the rigid and regular repetitions of its working, to seek the warmth of a hidden mental activity. Another and more urgent series of motives lies in the self-contradictions that make it impossible for us to conceive anything as simply being, without at the same time possessing and enjoying itself, and force on us the conviction that living beings alone truly are, and that other forms of existence derive their explanation solely from mental life, not the latter from them.

Thus almost at the end of our journey we find ourselves brought back to the thoughts that actuated minds at the beginning of human development, in the poetic fancies of

mythology. And we intentionally note this kinship, little of a recommendation as it would seem to be for the scientific solidity of our view. For in fact our intention was in this affirmation of a cosmos animated throughout to indicate exclusively one view that here opens before us, making it possible for us to take a preliminary glimpse, and not actually to explore infinite distances. Fain as we are to keep this glimpse for ourselves, we yet must not introduce it into science; we would, as a matter of fact, only return to baseless visions of a less picturesque mythology, did we try to carry out what we believe to be the truth of the matter; did we seek to show how the laws of physical phænomena arise out of the nature of the mental activity that, hidden in the heart of things, forms their true essence and the one source of their efficacy. Already in antiquity there were those who spoke of love and hatred as the powers that move substances and determine their mutual relations, and who sought thereby to base on living and intelligible motives those attractions and repulsions which we now, without any understanding of their ground, conceive merely as in fact belonging to the lifeless mass. We must, indeed, in general allow and maintain that all motion of matter in space may be explained as the natural expression of the inner states of beings that seek or avoid one another with a feeling of their need, with a craving for completion through elective affinities, with a sense of beginning disturbance; but assuredly we do not stand so in the centre of the world and of the creative thought expressed in it as ever to have it in our power to deduce from a complete knowledge of intelligent existence (which we do not possess) the precise laws of physical processes as necessary results. Here, as so often for human limitation, the path of knowledge is different from that of the development of the nature of the thing; nothing remains for us but to gather from experience the laws found valid in the ultimate ramifications of reality, while silently retaining for the whole of the world of sense the understanding that it is but the veil of an infinite realm of mental life.

§ 4. Let us now cast a glance at the advantages that may flow from this modification of our views to our conception of the relation between body and soul, and we shall find them perhaps more trifling than we expected, perhaps lying in another quarter. Those who were staggered by the idea of a possible action and reaction between the soul and the differently constituted content of matter, may now have their scruples removed by the perception that in fact two different beings do not here face one another, but that the soul as an indivisible being and the body as a combined plurality, form kindred and homogeneous terms of this relation. The soul acts not on the body so far as matter, but on the supersensible beings which only afford us the phænomenal appearance of extended matter by a definite form of combination; not as material and not with material instruments does the body exert its influence on the mind, but all attraction and repulsion, all pressure and impact, are, even in that nature which to us seems utterly devoid of animation, even where they act from matter to matter, only the manifestation of a psychical action and reaction, which alone contains life and energy. But we attach little importance to this advantage, which removes only an imaginary difficulty, while casting no light on the real incomprehensibility how one thing can in any way act on another.

Our theory may still less please those who looked on a complete development of body into soul and soul into body as the necessary and alone desirable result of our speculations. For we now go on to contrast as sharply as ever the one indivisible soul which we call ours with the animated body; and as persistently as before must we regard the body itself as a system of parts whose co-operant activities form the source of its life, only that an inner mental energy now fills each of the particles that in our former statement were of importance only as starting-points of physical forces. No more than it formerly seemed to us possible to explain the peculiar elements of mental life by the crossing of physical actions of the nerves, do we now

find the spiritualized nature of the parts adequate to render more comprehensible the rise within us of the one consciousness. Whatever internal experiences each atom of a nerve may have, whether, under the impression of external stimuli, it produce a sensation like or unlike to one of ours, have along with it like us a feeling of pain or pleasure, and be drawn by it into volition—all this inner life has for our own mental development no significance whatever so long as it is not manifested. Only when each atom of the nerves transfers to the one immediately contiguous to it its own impression, till through the complete chain of all the excitation is transmitted to the soul also, do the internal states of these elements palpably affect the moulding of our mental life. But none of them communicates these states as such to its neighbour; no wave of conscious sensation, of living feeling and willing, can, by moving on in the path of the nerves and simply entering our soul, become our sensation, our feeling, our volition; each several being must produce in itself and by its innate energy what is to be its own state, and it matters nothing whether the external stimulus exciting it thereto resembled the state to be produced or not. When enthusiasm for a great thought spreads swiftly among a crowd, it does not as such pass from one to another like a kind of atmospheric air or an infectious virus exhaled by one body and taken in by another. Each soul must anew produce it by its own force, and from within warm into a glow for the object, whose very image and idea is communicable by one to another only by a complicated apparatus of conventional sounds and illuminating remembrances.

While, then, we long ago allowed the possibility that in each atom of the nerve a similar process may take place to that of which we ourselves have experience in conscious sensation, we must now at the same time repeat the other assertion which we added—namely, that for psychology that possibility is wholly immaterial. The office of the nerves in the production of sensation is simply that of messengers charged with the conveyance of tidings to their destination.

Perhaps the messengers are acquainted with the tenor of the news, and on the way are thinking it over with kindly interest; but the sympathy of the messenger will not bring about understanding and appreciation of the contents in the recipient, if both do not flow to him from a source within, nor will these be lessened by the circumstance that the message was finally delivered to him by the hand of one wholly indifferent. The nerves, therefore, perform the task to which they are called just as well if they are mere paths for the transmission of a purely physical process that only once, only on making an impression on the soul, undergoes a transformation into sensation, and it is (with no small benefit to its certainty) permissible for science to set aside all reference to the unknown mental energy with which, on the other hand, the æsthetic view of Nature may lawfully fill the sum of things actual.

In fact, nothing but the beauty of the living form is made to us more intelligible by this hypothesis. That beauty of course is not annulled even for those who hold that the body is but a sum of lifeless parts; as in the sweeping lines of drapery we, as it were, have an echo of the power and dignity, the grace and splendour, as it were the changeful play of energies by whose traces mental life can animate selfless matter, so the body—a still more pliable wrapping, fitted for greater variety of expression—would reveal the admirable and absolute dominion of the soul over the sense-instruments of phænomenal existence. But assuredly this beauty receives a new glow when we do not need to think of the symmetry of the human figure and the harmonious arrangement of its several parts as merely the nice adjustment of a well-devised instrument, or the graceful motions by which in the change of attitudes each part by tension or relaxation seeks to fall into new equilibrium with the rest, as merely an operation artificially adjusting its own disturbances; when, on the contrary, we can divine in each point of the form a feeling of enjoyment in its particular position and its manifold relations to the whole, or in the last faint echoes of slight tensions

with which every movement from place to place spreads over the outlines of the body, discern a token of the soulful intelligence with which all parts unite in common enjoyment of their admirable combination.

The image which we have now to form of the living form and its mental life is that of an association of many beings. The governing soul, placed at a favoured point of the organism, collects the numberless impressions conveyed to it by a host of comrades essentially similar but lower in rank from the inferior significance of their nature. Within itself it cherishes what it receives, fashioning it into motive impulses, which it applies to the ready force of its comrades, that thereby regular reactions may be evolved. A common understanding and sympathy pervades this combination, and nothing that happens to one part is of necessity lost to another, nothing but the peculiar plan of the whole can stop the diffusion of the effects on all sides. I know not in what point the satisfaction which this view seems to me to afford could be surpassed by that flowing from a hypothesis requiring complete fusion of the soul with the bodily organism, and seeking to convert the indirect enjoyment procured on our theory for each several part by the experiences of all the rest, into a direct coincidence of all. When we think of the soul as spread like a diffused breath through the extent of the body, when we suppose it to share directly in what at each moment is done and suffered at every single point of its structure, do we thus gain anything that might not be equally afforded by the conception of an indirect reciprocal action? Do sensations become less distinctly ours by our supposing their excitation to be dependent only on the final effect of a physical nerve-stimulus on the nature of an indivisible soul, and are they made clearer by our holding that each single step of the physical intermediate process by which they are transmitted is accompanied by mental action that yet never comes to light in consciousness? Are our movements in any higher sense our own vital acts, if our will travels to

the terminations of the motor nerves, perhaps even to the muscular fibres, and would they not remain just as much ours, if only a single motion of the soul were needed to call into activity the prepared connection of ministering parts? What inducement can we have to exchange this distinct image of the orderly sway of one over an organized multitude for the confused conception of a vague unity of all, in which every regular form of reciprocal action with which experience makes us acquainted would seem to be but an unintelligible intricacy? All that we prize in life, and that is the source of nobler enjoyments, rests on this mode of combination in a manifold; the human race, embodied in countless individuals, leads the life of constant reciprocal action, of mutual fellow-feeling in love and hatred, of uninterrupted progress, that makes all share in the gain of one part. All blending of the many into the one degrades the dignity of life and of happiness, for it lessens the number of beings, each of which might independently have appreciated the value of given relations. The unity in which we long to be knit with another is always completeness of intercourse, reciprocal enjoyment of what is without, never the confused mingling in which all joy of union perishes, because along with the antithesis it does away with the existence of that which could be aware of reconcilement.

And how little confirmation, after all, does the dream of this unity receive from impartial observation! The structure of the body is gradually put together from scattered constituents of the outer world, and involved in perpetual flux it is continually giving back parts whence they came. With what, then, could the soul form a unity? If it is alternately blended with the entering supply of the body and divided from the decaying remnant, in what else can that unity consist than in reciprocal actions that unroll themselves and then come to an end, according as the course of Nature in one case adds new elements to those at work, in another forces others out of their relations. This life of the parts is like a throng of travellers. Of these we know

neither whence they come nor whither they go; though strangers they come together, for a short time there goes on among them a sociable intercourse, corresponding in its general rules to their common end as travellers, and each takes in the stimulations afforded to him by the communications of the others. So we may think of each atom of the body as the seat of a peculiar mental energy; but we do not know this; we are wholly ignorant of its previous history and of the development that may await it in the future; each element, drawn for a time into the regular vortex of our living body, may enrich its own internal condition by new experiences, and minister to our development by propagation of the stimulations imparted to it by the external world; yet its inner life never becomes ours, and when the union of different beings on which our living form depends falls to pieces, while we shall all have gone through something together, it will be as beings originally different that after a passing contact again separate.

# CHAPTER V.

## BEGINNING AND END OF SOUL-LIFE.

**Limitations of Knowledge — Questions concerning Primeval History — Dependent Nature of all Mechanism—Natural Necessity and the Infinite Substance—General Possibility of Action—Source of Definite Laws of Action—Immortality—Origin of Souls.**

§ 1. BUT whence came together at the beginning of history the beings who were together to perform the drama of animated life, and to manifest so excellent a development? And how is it that in the propagation of the race such a marvel is repeated as that every soul finds its body, every germ of a bodily organism receives the quickening breath of its spirit? Lastly, what fate awaits the several beings after the dissolution of their partnership, most of all the soul, of whose destination to endless development we seem to have a pledge in the significance of all that it has undertaken and accomplished in union with the body?

The course of our discussion inevitably carries us back in the end to these questions; and the more sharply we have tried to draw the outlines of the relations between body and soul, the more imperative do we feel the obligation to give completeness to our conceptions by an explanation in regard to the origin of this connection and the import of its final dissolution. But are we to deceive one another? I by pretending to be able to solve these problems, and whoever has followed me thus far by pretending to trust me? We need not so much as look back on the fruitless efforts of centuries, we have simply to recall the means at the disposal of human thought to feel the hopelessness of any attempt to

shed over this beginning and ending the clearness of intuitive knowledge Let us not for a moment, then, give ourselves up to the illusory dream that we can ever succeed in converting into certain knowledge what is intended merely to environ the sphere of human experience as a trustful dim anticipation. One task nevertheless remains for us to accomplish. For let us, as we will, refrain from making to ourselves images of what lies beyond the bounds of that sphere, we must yet see whether the views which within it we have formed leave open at least the possibility of a satisfactory conclusion in the far distance, or whether that which we hold with strong conviction cuts off even the hope of such a consummation. Too surely will gaps that cannot be filled up remain in human insight, but it cannot, without self-destruction, consent to believe in that which it perceives to be incompatible with the necessary validity of its own principles.

For the consideration of these last questions we find the modes of conception which we have hitherto been employing inadequate. For they have all assumed the actual order as a complete, given fact, and sought only to ascertain the general laws according to which the several events of the actual course of things are respectively developed. Thus they have all had as their exclusive subject the preservation and continuance of a cycle of phænomena, whose first beginning and final goal have been deliberately left out of the range of their inquiries. And, in fact, as from looking at the structure of a completed machine we calculate what work it can perform and in what order, without being materially aided in our estimation by a knowledge of its origin and the method of its construction, so we can understand the maintenance of the universe and the rhythm of its phænomena from its present constitution, even without being acquainted with the history of its genesis. But this we do, it must be remembered, only on the condition that for each several moment we assume that the cause of the definite form given to it by events was present in the preceding moment as a fact. Thus we drive

the problem backwards step by step, and at last have to make the confession that the primal origin of all things remains to us a mystery, and that throughout the course of the universe we discern at most alternations of development, but nowhere the origin of that primary arrangement on which the possibility of this rotation absolutely depends.

We deceive ourselves if we suppose that science can anywhere overstep these boundaries. Since the idea of the formation of the planetary system out of a fiery vapour—an ingenious speculation in regard to a past period that lies beyond all experience—has become part of the common stock of culture, it has been thought that now at last a fair order of phænomena had been evolved, not indeed out of nothing, but at least out of formless *prima materia*. But this is to forget that the history of this ball of fire, whose subsequent transformations are so acutely traced, necessarily runs backwards into an endless past. Before the globe gradually cooled and condensed, there must have been a time when its temperature was still higher, its magnitude greater; where now shall we find the first moment of the process of condensation which this hypothesis supposes to be already going on? And what originally determined the direction and velocity of the revolution in which we must assume all its particles as harmoniously moving? Even this state of chaos was not the beginning of the cosmos; it was only one of those middle points in which earlier forms of phænomena have to the mind's vision contracted into insignificant simplicity; but through this the matter, the forces, the motions of the actual world pass without loss or diminution, to expand again on the other side into the variety of a new development. Thus every orderly combination of events is based on a prior combination, and varied as is this melody of the Becoming, now swelling into greater fulness, now shrinking into an insignificant germinal form, it has for us neither beginning nor ending, and all our science can do is to climb up and down this interminable stem, comprehending the connection of particular portions as the result of universal

laws, but never attaining to a discernment of the originating principle of the whole, or of the goal of its development.

And what lesson do we draw from the consciousness of this limitation? None other assuredly than for ourselves an exhortation to await with unbiassed patience the results of the progress of science in the past and the future—for science itself the wish that its votaries may continue to labour with scrupulous accuracy, not allowing themselves to be misled by partiality for any one particular result of its researches For whatever it may teach us, it will not lead us to the end of things, and the cravings of our spirit will be satisfied, not by any unveiling of the prehistoric stage of our existence, but only by a perception of the eternal bond that at all times knits together the changing world of phænomena and the world of true being. Did we possess that knowledge, how little would it avail us if we succeeded in finding sure answers to those questions concerning the origin of the human race to which we so often in our passion attach too great importance! Perhaps some day an unexpected piece of good fortune will multiply the now inadequate number of starting-points of inquiry, and make us equal to a decision that no one now can give. Supposing now this improved science should turn for us into a certainty the belief to which so many fondly cling—the belief that with blind inherent necessity the yet formless chaos of the infant world steadily advanced in perfection till it reached the point where the production of man became inevitable, would the outlook into an infinite distance that science seems to shun then be closed for it? If it could make men comprehend how first of all the solid earth-crust and the skiey spaces of the atmosphere were separated from the fiery ball of vapour, how each stage of this separation gave occasion for new effects of the elective affinities of the elements, how then, in the favourable circumstances supplied by the blind necessity of Nature, the first germ of a plant or of an animal came into being, still simple and rude in contour. and with little aptitude for significant development—how, finally, under happy conditions, to which this low stage of

life conduced, organic existence gradually improved, lower species were in the course of countless ages developed into higher ones, till at last man appeared, not in the image of God, but as the final link in this chain of necessary events: if science could make all this comprehensible, what more would it have accomplished than to have driven back the marvel of immediate creation to an earlier point in past time, at which infinite wisdom infused into unsightly chaos the boundless capacity for regular development? By the long array of graded stages of evolution through which it traced the development of the chaotic *prima materia*, it would but have enhanced the splendour and variety of scenes in whose outward pomp our admiring fancy could revel; but it would have given no more sufficient explanation of the wondrous drama as a whole than does that modest belief which cannot conceive of living species as coming into being save by the direct creative will of God. So a decision about these points, as far as science will ever be able to give one, we must quietly wait to receive from its impartial love of truth. Whichever way of creation God may have chosen, in none can the dependence of the universe on Him become slacker, in none be drawn closer.

But of this patient expectation we are apt to have very little; nay, these two conceptions of the cosmos stand in the most vehement antagonism, the one seeking to convert Nature into pure mechanism, the other, which believes in the immediate efficacy of a divine ruling wisdom, perhaps not yet fully apprehending its own import. For what seems to me defective and inadequate in this theory is, that it is usually the contemplation of life, and psychic life, that stirs up those who hold it to the acknowledgment of a higher power that unites scattered phænomena into the whole of a course of things. To them, too, it seems at least possible that the regular order of the outer world may rest on the blind necessity of a self-sufficing mechanism: only the especial excellence of the vital organism and the nicely-adjusted harmony of its existence constrain us here to betake ourselves,

beyond the ordinary means of explanation, to the belief of a creating and preserving wisdom. This acknowledgment seems to me to come too late; we do not gain anything by snatching away one part of actual existence from the sway of the general order of Nature, as too exalted to have come into being by mechanical causation; on the contrary, we must reconcile ourselves to the thought that the immovable necessity that seems to hold firm the whole mechanical course of things is but an idle dream, and that no reciprocal action ever comes into play without the co-operation of that higher cause which we ill-advisedly fancy is needed only to give rise to certain favoured phænomena.

§ 2. It is a strange and yet an intelligible pride that our scientific illuminati take in requiring for the explanatory reconstruction of reality in thought no other postulates than an original store of matter and force, and the unshaken authority of a group of universal and immutable laws of Nature. Strange, because after all these are no trifling postulates, and because it might be expected to be more in accordance with the comprehensive spirit of the human reason to acknowledge the unity of a creative cause than to have imposed on it as the starting-point of all explanation the promiscuous variety of merely actually existent things and notions. And yet intelligible, for in return for this single sacrifice the finite understanding may now enjoy the satisfaction of never again being overpowered by the transcendent significance and beauty of any single phænomenon; however wondrous and profound may appear to it any work of Nature, those universal laws, which are to it perfectly transparent, give it the means of warding off a disagreeable impression, and, while proving how perfectly it understands that even this phænomenon is but an incidental result of a well-known order of Nature, it succeeds in drawing within the limits of its own finitude what to the unprejudiced mind is conceivable only as a product of infinite wisdom.

These tendencies and habits of scientific culture it will be hard to shake, especially by the arguments usually brought to

bear on them by the believers in a higher, intelligent guidance of the course of Nature. For however distinctly unbiassed observation may suggest this belief, so that it may seem alike foolish and tedious to attempt to understand the order of Nature without it, the supporters of the mechanical conception can always with justice reply that nevertheless in the explanation of details their road is always entered by those who on the whole believe unquestioningly in the government of an intelligently working power. They, too, are not content till, for each result ordained by this power, they have one by one traced out the efficient means through whose necessary and blind causal connection the required effect must be brought about. Even they will never seriously believe that within Nature as it lies patent to our senses, this purposive power makes new beginnings of working, such as, if traced further back, would not always prove to be the necessary results of a prior state of things. While thus even to those who hold the more religious view, the course of events is again converted into the unbroken chain of mechanical sequence, from the scientific point of view the latter alone is conspicuous, and the idea of free action on the part of an intelligent force, to which no sphere of action can be assigned, is readily dropped. Science might be able to allow that the origin of the whole, whose internal relations alone form the subject of its investigations, may be attributed to a Divine Wisdom, but it would demand facts that, within the sphere of experience, made a continuous dependence of the creation on the preserving providence of its author a necessary condition of explanation. Too ingenuous and self-confident, the believers in this living interference of reason working towards an end bring forward only the fair aspects of life, and for the time forget its shadows; in their admiration of the wondrous harmony of organized bodies, and of their careful adaptation to the ends of mental life, they do not think of the bitter persistence with which this same organized life transmits ugliness and disease from generation to generation, or of the manifold hindrances that come in the way of the attainment even of

modest human aims. How little, then, can this conception of the universe—to which the presence of evil is, if not an insoluble, at least an unsolved problem—hope by its assaults to overcome a habit of mind that finds numberless special confirmations in observation, and is inaccessible to any feeling of the universal deficiency under which we suppose it to labour!

And is it compelled to make even the acknowledgment which it will perhaps make, that this world of blind necessity came forth at least primarily from the wisdom of a supreme creator? Doubtless it can reply that even the purposiveness of the present fabric, as it now is, could certainly have been evolved from the confusion of an original chaos under the sway of universal laws. For all that was brought together by a planless vortex, in unmeaning aggregation and without the internal equilibrium of constituents and forces that might have secured to it a longer existence in the struggle with the onward-sweeping course of external Nature: all this has long since perished. Along with and after numberless unsuccessful attempts at formation, which perhaps filled primæval times in a rapid alternation of rise and decay, Nature gradually shrank into a narrower channel, and only those select creatures were preserved on which a happy combination of their constituent parts had bestowed the power of withstanding the pressure of surrounding stimuli, and of propagating their kind throughout an indefinite period. However little we may probably esteem this theory, we could yet hardly snatch it from those whom it satisfies, and we ourselves cannot wholly disallow the charm that scientific ingenuity will always find in the attempt to evolve from the formless chaos of whirling motions the necessity of a gradual sifting, and the spontaneous formation of permanent forms of succession of phænomena.

But all such attempts rest on the common assumption that the universal sway of unchanging laws prescribes the kind and amount of the reciprocal actions engaged in by the several substances of the original chaos, and thereby compels them to withdraw from combinations in which no equilibrium is

possible, and to enter into others in which they are at rest, or can retain a constant mode of motion. This assumption it is whose trustworthiness we must now test; with it stands or falls the proud certainty of the mechanical conception of the universe. Is this veneration for an all-prevailing law of Nature, as the only bond that forces the scattered elements of the course of things into mutual active relations and determines the character of their results, itself a possible conception, and can it put the finishing touch to our view of Nature, whose perfecting in detail we ourselves have everywhere looked to it to accomplish?

§ 3. Let us suppose two elements originally in existence, not produced by anything, not sprung from any common source, existing from eternity as things actual without any antecedents, but existing so that they have no other community than that of contemporaneous existence: how could the influence of the one be communicated to the other, seeing that each is as it were in a separate world, and that between them there is nothing? How is the efficacy of the one to make its way to the other through this nothing, offering no means of transmission? And if we did suppose that the energy of each element constantly diffused itself like a separable atmosphere through a common space, effective like the rays of light where it met with anything on which to act, and floating idly in vacuo where nothing presented itself, what should we have gained? We would not understand our own conception, either how the action could issue from the limits of that in which it was generated; nor how, floating for some interval of time between its source and that which was to be its object, it maintained itself in vacuo; nor, lastly, how, in the end reaching the latter, it was able to exert a transforming power over its states. For, while space would offer no obstacle to the mutual action of that which, though separated by it, was yet united by an inherent relation, contact in space would not involve any necessity of reciprocal action, or explain the possibility of it between beings each of which in its complete self-dependence was divided from the other by the impassable

gulf of inherent indifference. The transmission of action from the one to the other seems simple only to him who, looking at the question in a superficial, commonplace way, thinks he can distinctly perceive it in the external motions by which it is accompanied; to any one examining it more deeply, it becomes more and more inexplicable how the condition of the one can contain a force compelling the other to a change of its own internal states. As, before, we were unable to follow our will in its outflow into the moveable extremities, but had to acknowledge that all volition remains confined to the willing mind, and that the execution following it is the work of an incomprehensible power: in like manner all the forces which we suppose in any form to inhere in the one element, will be inadequate to give rise to an influence on that in which they do not inhere. Now, can the conception of the universal course of Nature supplied by our previous speculations, can the idea of a realm of eternally and universally valid laws, fill this hiatus, and weld the brittle and isolated fragments into the solid whole of a reciprocally acting world?

Certainly it cannot; for how could laws exist of themselves, as a necessity prescribing particular results for particular cases? There can be nothing besides being and its inherent states; and a universal order, before that of which it is the order has come into existence, cannot spring up between beings as a self-existent background holding them together, an efficient, controlling power. If we look back on our human life, we shall find that the laws of our social relations do not exist beside and between us in independent reality, are not powers to direct and control us from without because there they are; they exist only in the consciousness of the individuals who feel bound by them; they receive sanction and reality only through the actions of living persons; they are nothing but the harmoniously and inwardly-developed direction of many individual wills, which to the later generalizing scrutiny of observation appears as a higher externally-directing power because in its common authority

over many it no longer presents itself as exclusively the product of one. The laws of Nature may be superior to the ordinances of the human mind; while the latter may be gainsaid and disobeyed, the commands of the former are unlimited and resistless; nevertheless Nature cannot bring to pass what is self-contradictory, or bestow independent existence on that which can have its being only in and through what is self-existent. We are apt to be led astray in these speculations by a widely diffused usage of thought and speech that exercises no prejudicial effect on our judgment of the incidents of daily life, in reference to which it has arisen. We speak of ties uniting things, of relations into which they enter, of an order which embraces them, finally, of laws under whose sway they respectively stand; and we hardly notice the contradiction contained in these notions of relations lying ready before the things came to enter into them, of an order waiting to receive the things ordered, finally, of ties stretched like solid threads—of a material that we could not describe—across the abyss that divides one being from another. We do not consider that all relations and connections exist only in the unity of observing consciousness, which, passing from one element to another, knits all together by its comprehensive activity, and that in like manner all efficacious order, all laws, that we are fain to conceive as existing between things independently of our knowledge, can exist only in the unity of the One that binds them all together. Not the empty shadow of an order of Nature, but only the full reality of an infinite living being of whom all finite things are inwardly cherished parts, has power so to knit together the multiplicity of the universe that reciprocal actions shall make their way across the chasm that would eternally divide the several distinct elements from one another. For action, starting from one being, is not lost in an abyss of nothing lying between it and another; but as in all being the truly existent is one and the same, so in all reciprocal action the infinite acts only on itself, and its activity never quits the sure foundation of being. The energizing of one of its parts is

not confined to that and isolated from the rest; the single state has not to travel along an indescribable path in order to seek another element to which it may impart itself, nor has it to exert an equally incomprehensible force in order to compel that indifferent other element to participate in it. Every excitation of the individual is an excitation of the whole Infinite, that forms the living basis even of the individual's existence, and every one can therefore act upon every other which has the same living basis; for it is this which from the unity of its own nature causes the finite event here to be followed by its echo there. It is not anything finite that out of itself as finite acts upon something else; on the contrary, every stimulation of the individual, seeing that it affects the eternal basis that in it, as in all, forms the essence of its finite appearance, can through this continuity of related being—but through this alone—act upon the apparently remote.

We are not constrained to this recognition of an Infinite Substance, that instead of an unsubstantial and unreal law unites all things by its actual reality, merely by admiration for single spheres of phænomena, by whose special significance we are impressed; nay, every example of reciprocal action however insignificant, every instance of causality, forces us, in order to understand the possibility of a transference of influence, to substitute for a merely natural connection a substantial Infinite, containing unseparated the manifold that in phænomenal existence is separated. We could not seek such a bond between the constituents of the living body alone, or between body and soul pre-eminently, as if we did not need it everywhere; on the contrary, seeing that we look on all that happens, however it may be designated, as but the manifested internal energy of a single Infinite Being, the later course of our speculations will carry us further from the resuscitated mythology that, like the ancient sagas, allots to certain distinguished phænomena their special genii, and leaves the remaining work-day reality to take care of itself.

For this Universal Being is not a mere bond, a mere indifferent bridge, having no other office than to form a way

for the passage of action from one element to another: it is at the same time the sovereign power that for every antecedent fixes the form and degree of its consequent, for each individual the sphere of its possible activity, for every single manifestation of the latter its particular mode. We deceive ourselves when we imagine we can derive the modes in which things act on one another, as self-evident results, from the particular properties that now constitute their nature, and from the joint influence of the circumstances of each occasion. Honest consideration, on the contrary, leads us to make the acknowledgment that the effects actually presented to us by experience are not to be got as necessary conclusions from these premises alone, however we may analyse and recombine their content, but that an unknown power, as it were, having respect to something that we do not meet with among these prior conditions, has annexed to their form the particular form of the result. The Infinite is this secret power, and that to which it has respect in the determination of results is its own presence in all finite elements, by which the universe receives the unity of a being, and on account of which the course of its events must receive the unity of a connected manifestation of the content of that being. Every finite thing, therefore, possesses the capability of action only in such amount and such quality as it is permitted by the Infinite to contribute to the realization of the whole.

§ 4. But we must be more diffuse, and allow ourselves to illustrate the faultless consistency of the theory which we are now engaged in stating, by the apparently opposite assumptions of which we formerly made use in our own examination of the separate phænomena.

In every finite thing, in so far as we apprehend it as a product of the One Infinite, we can point to a certain group of marks as the peculiar stamp assumed in it (as distinguished from every other finite thing) by that One. We cannot suppose that in any one of these particular forms that make the one finite thing this, the other that, the being of the Infinite that

is in all alike the common ground of particular existence is exhausted; but just as little can we think that its indivisible content is split up into countless fragments and present in each several thing in only a part of its fulness. In considering the vital activity of the human soul, we were led to make a requirement similar to that here forced on us, and we may now be assisted in forming a general conception of the relation in question by remembering that more easily grasped instance of it. When the soul forms thoughts without a trace of feeling or of willing, we do not suppose that this one-sided activity shows that but a part of its being is present, while its other capacities are slumbering in apathetic unconcern. On the contrary, the same whole nature that, under the influence of other stimulations, would develop feelings of pain and pleasure, efforts of desire and aversion, we conceived to participate with the whole extent of its being in the production of thoughts But it is exhausted in thought no more than in any other particular form of its manifestation; in all fully present and active, it finds in each but a one-sided and partial expression, and behind the action evolved at each several moment a larger and more abundant and potential reservoir remains undisclosed and concealed. And this very wholeness of the soul's presence, common alike to all the manifold forms of its manifestation, is the instrumentality that makes the reciprocal action of the various internal states possible, and fixes the character of their resultant. We did not find feeling flow as a necessary and self-evident consequence from any complication of ideas; it arose because the presentative activity called into action the whole living soul, in whose nature feeling lay as yet unaroused, but ready to appear under conditions of which some are realized by the train of ideas.

Now let us compare with the soul's indivisible being the Infinite, the substance of all things; with the several forms of mental action those finite things—the visible elements of the world—whose various forms are the moulds in which that Infinite has been cast. Now, as in the soul the reciprocal action of the internal states, so in the process of the universe

the reciprocal action of things will depend, not only as to its general possibility, but also as to the character of its effects, on the community of being by which all are bound together. What each individual element performs, it performs not as individual, but only in so far as, being individual, it is yet a phase of the universal; not because it is of such a kind and no other, includes such attributes and no others, must it produce such an effect and no other, but only because in it as it is abides the Infinite, whose abundant nature unites the attributes, ready with its force to protect them or to carry out their alteration. Thus at bottom everything finite works only by that in it which makes it secretly better than it seems, by the essential power of the Infinite latent even in it; the power and capability of action belongs not to the outer wrapping of particular properties, but solely to the core, in so far as therein enveloped. Now, if we give the name of *nature of a thing* to the fused and simplified duplicity of the Infinite Being that has in it assumed this particular form, or of the finite form that has become filled with the Infinite, we shall be entitled from this nature of the thing to derive all modes of its behaviour as necessary consequences. For inherent truth and consistency will compel the Infinite, with every special finite form which it assumes, to fix also the unalterable mode of action to be executed in it, in accordance with the ideal that presided over the creative moulding of this particular form as an essential part of its manifestation. But the usual bent of science is towards another form of statement; the group of attributes, inefficacious without the living being behind them, the finite envelope of the truly existent, is commonly termed the nature of a thing, and little is said about what we must regard as alone the enduring and efficacious substance of these phænomena. From this merely semi-nature it is believed that the procedure of things can be deduced as a necessary consequence; it is supposed not only that we can understand the possibility of influence being transmitted, but that in a series of universal and self-evident truths we further possess the means of deducing the character of any

result from the given circumstances and the permanent properties of the things.

Here it is overlooked that the impression of self-evidence created by so many sequences of cause and effect, proceeds not from any inherent necessity intelligible to us, but solely from the general and preponderant presence of those connections which, recurring constantly as actual arrangements of things, cheat us with the appearance of being not merely facts of experience, but necessary relations of thought.

After experience has taught us that the amount of ponderable matter remains unaltered under all transformations, this amazing result of observation assumes in our eyes the exalted character of a primary necessity, and we imagine that a necessary inference of the permanence of substance might have taught us this fact anterior to any experience. After we have observed that motion once begun goes on the longer the more it is freed from obstacles, we are suddenly possessed by the idea that perpetual duration, where it is not resisted, is its necessary condition, and yet we never succeed in proving this would-be necessary truth from grounds of pure thought. Again, after we have seen that one body sets another in motion by impact, the distribution of velocities and the communication of motion in general seem to us phænomena naturally to be anticipated, and only when we try definitely to state the ground of this expectation do we discover that we know none. That every physical force diminishes as the distance between the bodies exerting it increases, we fancy to be a law which we cannot think otherwise, and yet, to be candid, we know no reason why, on the contrary, attraction should not be less at a diminished distance, as it might easily be decreased in proportion to the amount of influence already exerted. Lastly, how readily do we ascribe an affinity to bodies, when their chemical action on one another has to be explained, not deducing it from the rest of their nature, but regarding it literally as the capability of an operation supplementary to their nature! Of course in this case we shall throw the blame on the incompleteness of our knowledge from experi-

ence; we think that we are not thoroughly acquainted even with the nature of the different elements; that if we were, we should find in it the explanation of their chemical affinities. This is possible, but assuredly only in the sense that the general rules according to which we should infer the chemical properties from the better-known nature of the elements, would themselves presuppose a number of those causal connections which are demonstrable as undeniable facts of the actual order of things, but not intelligible as necessities.

From such fundamental facts, after we have learned their significance and the line of their development, we can of course deduce manifold particular results, but we cannot discern these themselves from a mere study of the things as given. Only if we knew the idea with which the Infinite brought these things into being could we understand them. He who thinks to demonstrate the order of events solely from the incomplete nature of the finite, undertakes the hopeless task of forming a theory of the motions of shadows without regard to the motion of the bodies by which they are cast. For, in fact, as we cannot ascertain the speed with which two shadows will seem to rebound from mutual contact, from the velocity with which they approach one another, but only from the elasticity of their relative bodies, so what things perform depends not on their recognisable properties alone, but on the elasticity and vitality of the unconditioned, which, as the sole comprehensive and efficacious being, presents this appearance of having properties. Only if we could see through the inner nature of things and say what purpose the Infinite has in this multiplicity of phænomena and their endless complexity, would we from that purpose understand also the universal laws of working which it has laid down for itself in this manifestation, and be able not merely to accept them as facts, but to comprehend them as part of the inherent consistency of the Infinite.

As this, however, is not the case, we would not find fault with the phraseology of physical science, so long as it is designed only to apply to current investigations, not to express the outcome of completed inquiry. Just as in life we hold

fast the silent conviction that each one of our moments is in the hand of God, while not caring to desecrate His name by bringing it into our thoughts about every trifling incident whose dependence on His will we do not understand, so we shall once for all adopt the belief that each stage of the course of Nature is reached only through the working and shaping power of the Infinite; but we shall not be ever and anon repeating this belief in the interpretation of particular phænomena. For in such particulars the Infinite operates only under the guise of those derived principles into which it has transformed itself, of those substances, forces, and operations which it has created, of which it has prescribed the character and laws, which, finally, it has woven into the connected whole of a mechanical course of Nature. When in this sense we reduce all events in Nature to mechanical sequence, we act in accordance with the spirit of the Infinite, and show reverence to its ordinance; we do not set up mechanism in opposition to it as an independent, hostile power that it has to subdue, but we see in this the true efficacy of the Infinite, that which it would wish recognised throughout the world of phænomena as the hand by which its ends are accomplished. Thus physical science may seem to do without the Infinite, because it does not speak of it, and the superficial physical culture of our time may think it can do without it, because, exclusively concerned with little transitions from finite to finite, it loses sight of the beginnings of the web in which it is enmeshed; but, in point of fact, all honest reflection will arrive at a serious conviction of the utter absence of independence in Nature, and, where it stumbles upon questions such as those which led to this explanation, it will not be able to refrain from the open expression of this conviction.

§ 5. Let us now turn back to these questions, in order not to linger too long in the sphere of general considerations, and we shall at once meet, in the doubts as to the soul's final destiny and the efforts to resolve these, with an instance of the fruitless endeavours which we have been censuring. Men seek in three ways to arrive at certainty in regard to immor-

tality. For, besides those many analogies, similes, and images to which the doubting imagination always first of all has recourse, and which, while preparing the mind for the reception of a truth, can never prove it, they seek to prove sometimes that immortality flows inevitably from the nature of things, sometimes that on grounds of justice it is a necessary concession on the part of the ruling powers of the universe. We have no intention of here repeating the numerous arguments of the latter kind, we would merely add a statement of our conviction that only from them—never, on the other hand, from those apparently more strict investigations that take the nature of things as their starting-point—can the mind derive grounds on which, with some confidence in their stability, to rest its expectation of eternal duration. There is no nature of things that, like an unforeseen destiny, precedes all reality as a code of laws that cannot be evaded; there is no such quintessence of the essentially possible and necessary to which the world-creating power must have looked in order to learn within what limits the realization of its ends was permissible, and under what obligations of consistent development it must come at each starting of a germ; finally, there is no eternal and premundane birthright of things or substances, on the ground of which they could demand that every power seeking their services in the formation of a world should respect their privileges and employ them only in a manner befitting their inherent dignity. All this—the existence of such things, the peculiarities of their nature, and the rights which seem to pertain to it—is at once and unconditionally the product of the creative power itself; the universe contains them in just the quality and quantity that the Infinite needs or rather allows for the accomplishment of its will; each thing possesses those rights alone which have been assigned by the inherent consistency of the Eternally One to each of its creatures as its limits, which have been bestowed on it by that creative will; within those laws alone do all its actions and its destinies seem to move with original necessity. Only if, standing in the creative centre of the universe, we

could fully scan the thought whence it has sprung, could we from it foretell the destinies of the individual called to contribute to its realization; this we cannot do from our human point of view that brings us face to face not with the Creator and His purposes, but only with the created. If, as we rightly believe, our mind is in possession of a treasure of innate, necessary truth, we certainly commit the first and greatest sin against the nature of that truth when we ascribe to it any origin which implies that even its content is not due solely to that creative power; it will guide us in combining the finite in harmony with the whole to which it ministers, but it cannot seek to comprehend the final destiny of all things apart from the knowledge of the supreme end on which that destiny is exclusively dependent.

The one conviction that has been brought home to us by our discussions is, that the soul is to be viewed as the substantial and permanent subject of the phænomena of our inner life. But that, because the soul is the abiding substance of these phænomena, it must therefore be endowed with an eternal and imperishable duration, as the privilege of its nature—the unprejudiced mind will never be convinced of the certainty of that inference. If required to allow that every substance is by the very idea of it necessarily indestructible, we may willingly grant that this idea is correct, but then we have to deny that it applies to the soul. We have no warrant for assuming that what once is must necessarily always be, and we sometimes doubt the possibility of rise and decay only because, with the wonted inquisitiveness of our thought, we would fain be able to conceive *how* they come to pass. Then, if the connection of our other views tends so strongly to make us see in all finite things but creations of the Eternal, it is impossible that the destinies of the individual can be other than accordant with the dictate of the whole. That will last for ever which on account of its excellence and its spirit must be an abiding part of the order of the universe; what lacks that preserving worth will perish. We can discover no other supreme law of our destiny than this, but this is itself inapplic-

able in our human hands. We dare not presume to judge and determine which mental development wins immortality by the eternal significance whereto it has raised itself, and to which this is denied. We must not seek to decide either whether all animal souls are perishable or all human souls imperishable, but take refuge in the belief that to each being right will be done.

And even as the soul's continuance after death, so is its existence before its birth into this earthly life no object of human knowledge He who in view of future immortality believes that an infinite anterior history of the soul is required, can hardly be incommoded by science in his belief and in the imaginations with which he fills up this void in our remembrance. But the experience of our present life contains but few traces that can point a mind so disposed back to this pre-existent state; the dream of a transmigration of souls, to which this conception would almost inevitably tend, has hitherto remained a dream of the fancy, nor has any one yet succeeded in giving it a higher moral significance for the order of the universe; lastly, no necessity of reason constrains us to shun the thought of a beginning of the soul. The organic body, in process of being formed, certainly does not educe it from itself; but the living body itself is no incoherent heap of atoms driven to a particular development by a universal law, in an otherwise empty world. As, on the contrary, every physical process, even the most minute, apparently taking place between two elements, is likewise an event within the Eternal, on whose constant presence all possibility of action depends, even so the quietly advancing formation of the organic germ is no isolated independent event, but a development of the Infinite itself. Fostered by it, received by it into its own inner being, this natural event there excites the creative power to new development; and as our human soul receives stimuli from without and answers them by the production of a sensation, so the consistent unity of the Infinite Being lets itself be stimulated by this internal event of physical development to produce out of itself the soul appropriate to the growing organism.

There is more unity and simplicity in this process than in the conception which we can give of it. Differing from the example of the relation between our finite soul and stimuli from without, that event of Nature is not to the Infinite a stimulus which, coming from without, has to travel along a path before it finds the centre whence it has to call forth the new development; each several event of Nature takes place in the Infinite, each is equally near the centre, and equally near at all times. And the soul does not spring forth again from this centre as a new second element that has to travel along a path in order to unite itself externally with the body of which it is in search: unsevered by time and space do these two creations unfold together, the Infinite expressing in their simultaneous development the inherent truth of its own being. The soul originates neither in the body nor in nothing; it goes forth from the substance of the Infinite with no less fulness of reality than all actual Nature brought forth from the same source. And neither do soul and body come together by chance, nor is it the work of the body by its organization to make to itself a soul corresponding to the possible form of its vital activity; nor does the Infinite arbitrarily distribute ready-fashioned minds to infant germs. But as with free consistency it makes every bodily organism the necessary result of the parent organisms, so also in the creation of souls it doubtless follows a self-imposed law, that weaves their succeeding generations into the gradations of an inherent affinity. The soul of the parents cannot be split up by division into the souls of the children, but we are left to the dim conjecture that the creative hand of the Infinite reproduces in the latter the mental image of the parents, and brings inwardly also into near relationship those beings which it has linked together most closely for outward life.

But a dim conjecture it is; here, too, by a thousand instances experience teaches us how unsearchable are the ways of God. By faithful and modest observation we may perhaps here and there gain a wider glimpse of the direction in which they tend, but we shall never be able to survey the course of the spiritual

order of the universe with the same approximation to truth that is granted to our view of natural phænomena. And all the increase of knowledge to which we may hope to attain, we must look for, not from the contemplation of our intelligent nature in general, but solely from a concentration of consciousness upon our destiny. Insight into what ought to be will alone open our eyes to discern what is; for there can be no body of facts, no arrangement of things, no course of destiny, apart from the end and meaning of the whole, from which each part has received, not only existence, but also the active nature in which it glories.

# CONCLUSION.

I WOULD not say that it is a summit commanding a wide prospect to which our examination has led us by a way long and yet for the variety of the adjacent tract perhaps too short; but we have at least reached the height granted to our powers, and looking back we may well recall the doubts from amidst which we started, and the altered scene now presented by the region travelled through. When we contemplated the struggle between the different views of Nature, we found that, while it was especially against the element of a dark and rigid necessity of Nature that the human spirit unceasingly waged war, it ended at last by making a blind surrender to the worship of that blind sway that seemed to come rather from renunciation than from conviction. Have we now discovered a way of reconciling the antagonistic ideas there in conflict? And what value ought we to attach to the several points of the theory that has gradually been formed for us during the removal of these urgent difficulties? No one will omit once more with honest self-scrutiny to seek a comprehensive answer to these questions, who has learned by habitual scientific research how often after its close there has been lost much of the radiance of the saving thoughts that were so dazzling when in the freshness of their birth they leaped to meet the difficulties. Then they were lighted up by the hopeful glow of labour, and shone with this far more than with their own light. Perhaps we too shall not here escape this fate; but perhaps also something will remain as a solid gain, which we may carry with us from this general survey of the conditions of all life into the special consideration of human affairs.

The belief in personal spirits of Nature, in which the mythic

conception of things embodied the beauty and significance of particular phænomena in the form of living enjoyment, we silently relinquished. No experience confirmed this dream; but at the same time it was more than all experience could accomplish, to overthrow another dream, in which the spirit, craving for inherent vitality in Nature, might in other wise win back its lost content. For nothing prevented, and much encouraged us, to suppose those simple beings, from whose combination the outward form of lifeless matter seems to ourselves to spring, to be the seat of an inner life capable of entering with the most varied forms of feeling into the peculiarity of every situation into which the changeful course of Nature threw them, or in which a more persistent process of growth retained them. On this conception the enjoyment of Nature was merely generalized; one favoured class of things has not its genii, while another lies blind and lifeless; but this glow of feeling might pervade all. And no longer, confined to the forms of human psychic life, does this innate energy now show us everywhere what we already know; we can conceive as dispersed throughout Nature, wholly different indescribable modes of enjoyment and feeling that hover in the distance before us but in dreamy fancy, so corresponding to the particular positions of the simple beings that no event of the varied course of Nature is shut out from this transformation through conscious enjoyment. But we are not inclined to expatiate on the advantages of this view, which from the comparative absence of distinct perceptibility in the intelligent beings of which it speaks, would the more commend itself to the musical tendencies of culture; we prefer to dwell on the fact that it may perhaps not be an idle dream, but yet that it lies far aloof from the serious and weighty convictions on which we seek to base our consideration of human culture. The progress of human development depended on which view as to the inner life of Nature was the prevalent one in each age, only so long as it could be a question whether the outer world, the scene and object of our actions, was ruled by wanton freedom and the caprices of genii and dæmons, or by the absolute consist-

ency of universal laws. After that has been settled, the sensitive fancy with which we seek to search out the soul of Nature, will be less favourable to the advance of our culture than the sterner mood that begins by taking the things of Nature for what they profess to be—for blind, deaf products, subject to a necessary order, that may have an inner life of their own, but for us form a sphere of instruments Without, therefore, blaming the imagination for pursuing the other line of thought, we must affirm that not in it but in the prose of the every-day appearance of things lie the more important foundations of our mental development.

In view of personal spirits of Nature, mythology could never get rid of the idea of an unforeseen necessity, within whose limiting bounds moves all the life of the celestial world. But the more ready we were to grant the presence everywhere of this necessary order, the more decidedly did we oppose the conception of it as a premundane fate, in contrast to the creative power to which the fixed forms of the actual world are due. It is not the case, as mythology in dark images taught, that the radiant world of gods, holding in their hands the order of the present world, only comes after an earlier, dark, and gloomy divinity, by whose mysterious sway was fixed the ground-plan of reality, which the former is busy enjoying and embellishing. On the contrary, the most solid part of our conviction was that the highest, most unbending, most general, and most necessary law anywhere presented to us by the world, is but the self-imposed condition on which the one creative Infinite has based its eternal evolution. Thus of itself our inquiry led us into the domain of other views that honour the quickening and animating impulses of the world of phænomena, only as endlessly varied expressions of the one thought that, in itself unutterable, forms the fulness of the universal soul.

Recognising that that alone truly is which has its place in the rational connection of the eternal Idea, that that alone takes place which lies in the line of its development, that everything finite possesses solely in the thought of the universal

soul embodied by it the explanatory ground of the impulse by which it is moved, we retained in these affirmations the fundamental doctrines of the above theory of things. And although we found the notion of impulses inadequate for detailed investigations, and substituted for it the unbroken causal chain of mechanism, there is here nothing antagonistic to the spirit of that theory, since we recognise all the laws of this mechanism as but the very will of the universal soul, all combinations and divisions of efficient means as its own actions, its operations on itself. But after all, what satisfaction could this theory afford if it were unable to unite the two great contrasting parts that together make up the world—Nature and the sphere of Ethics? And can we deny that all those doctrines do but give us a soul of Nature instead of the world-soul? A being in whose one infinite shaping impulse the countless several impulses of finite phænomena blend like coloured rays in the unity of white light? But where in this being is the cause of the development of the moral world, where that whence proceeds the distinction of good and evil? If we will not—relapsing into the old antagonism—either externally ground the moral world on a Nature originally given, or assume that the two separate roots coexist without any bond of union in a Supreme Being that we call One, no other choice remains than either to include the Good in the cycle of natural phænomena, or Nature in the accomplishment of Good. I cannot for a moment doubt that the latter alternative is alone permissible: all being, all that we call mode and form, thing and event, the whole sum of Nature, can be nothing else than the condition for the realization of Good, can be as it is only because thus in it the infinite worth of the Good manifested itself. But this decided conviction indicates only an ultimate and farthest goal that may give our thoughts their direction; it does not indicate knowledge that deserves the name of science, because it can be formulated in a demonstrable doctrine. To our human reason a chasm that cannot be filled, or at least has never yet been filled, divides the *world of values* from the *world of forms*, and

however energetically our receptive mind may work its way backwards in thought to spell out from the actual forms of Nature the value of their ethical significance, we cannot hence proceed to prove from the consciousness of the highest values the necessity of their taking shape in these and in no other forms of Nature. With the firmest conviction of the undivided unity of the two we combine the most distinctly conscious belief in the impossibility of this unity being known.

How easily could we avoid this confession by a concealment of the facts! For how inventive has our speculative science always been to spare itself by means of new names and images the humiliating confession that its problem here is no other than that which has all along engaged the unsophisticated human mind, and yet that it has come no nearer a solution. When the question is asked how from the hand of the same God that established the sanctities of the moral world could come forth the revolution of the planets, the beauty of the earth, with the joyous multitude of its plants and animals and the unbending necessity of the mechanism which these conceal: how easy it is, and yet how contemptible, to speak of a real and an ideal factor in God, of a preponderance of blind or of conscious working in His activity, and to attribute to the former, Nature, still mysterious in its forms, and to the latter the equally shadowy outlines of mental existence! How easy is it to see in God something that is not God Himself, a dark ground growing out into the material stem of Nature and overarched by the more lustrous manifestation of the other element in God that is more peculiarly Himself! With such miserable shifts is the seriousness of the question trifled with, and after all less is said than is contained in the simple creed of the artless mind, that the unsearchable wisdom of God is the source of all finite forms.

We have to make the same confession of the impossibility of giving scientific precision to a belief which is not on that account less sure in our relation to the last great view of Nature —the mechanical. We granted it unreservedly, in so far as

concerns the examination of the relations between finite and finite, the origin and accomplishment of any reciprocal actions whatsoever; we as decidedly denied its authority, where it claimed acceptance, not as a formal instrument of investigation, but as a final theory of things. While denying, however, the independent reality of a mechanical course of Nature, we cannot complete the deduction of its several laws from the supreme end of the universe, but must leave it to the slow progress of science to show how far this attempt is practicable, how far it will ever lie beyond the reach of human thought. All we could do was to point out how little necessary connection there is between the character of externality, so often laid as a charge against the mechanical conception, and the spirit of that conception. Those who hold it are not prevented from accepting internal states in the effective elements by whose varying combinations they account for the variety of natural phænomena, and a secret energy in the life of these which they are at liberty to heighten, till they come to believe in a play of mental excitations akin to ours. The motley abundance of phænomena does not necessarily become for them lowered to an unintelligent exchange of motions, an ever new and ever alike meaningless distribution of velocities, a restless changing of the situation and combination of the particles: they, too, can look on these vicissitudes of external Nature as but the sum of occasioning causes by which, according to immutable laws, an inner nature is called forth which forms the inexhaustible variety of feelings within beings. Mechanical natural science no doubt makes the external history alone the subject of its examination, and leaves the internal, which it cannot study with the aid of experience, to the activity of our imagination. Yet it does not believe that in the world of motion it possesses the true reality, the ultimate meaning of all existence, the final end of all creation, but holds also that mechanism is but the collection of all the instrumental forms in which God has willed that created beings shall act on one another with their unknown natures, and that all their states shall be welded into the endless chain of a world-history.

This view explores the sphere of means, not the sphere of the ends to which these minister. As in our life we see the physical motions of external Nature employed as stimuli to excite that in ourselves which is far higher—conscious sensation: so, we think, throughout the universe mechanical events are but the external tissue of regularly crossing stimuli, designed to kindle at innumerable points, within innumerable beings, the true action of a more intelligent life.

But if we lay stress on the dependence of Nature, so that the deification of mechanism, with which after all we may perhaps be charged, consists only in our conceiving it, not as a self-supporting fate, but merely as a product of divine wisdom; we must, on the other hand, require the recognition of its absolute validity. We think we have shown how, in most of the cases where a view of Nature, more sympathetic than clear, oppressed by the rigidity of this, betakes itself for refuge to other higher forces and powers, on the one hand, experience forces on us (often most bitterly) the permanence of mechanical conditionality, on the other, our own feeling would reap no advantage from the conjectures which, with a secret consciousness of their discrepancy, it might venture to form in regard to given facts. We did not find the freedom which we may justly wish to preserve, formally incompatible with the continuity and firm connection of the mechanical construction of the universe; but doubt as to whether in this case what we conjectured might answer to the rightly understood reason for its being conjectured, made us hesitate along with the possibility of freedom to speak of its reality, and to assign to the notion a particular place in the whole of the mechanical universe. The further, however, we travel along this path away from the wretched narrowness of the views of former times, to which mechanism was nothing else than an endless communication of mutual shocks, the more must we repel every attempt to withdraw particular parts of finite reality from the universal law of the instrumental character of finite events. Nowhere is mechanism the essence of the matter;

but nowhere does being assume another form of finite existence except through it; as we have not other gods beside God, so we need no other form beside this universal form of action in Nature.

We are well aware of the reason of the contemptuous aversion with which so many minds revolt against this acknowledgment. To us all at times the world of forms seems too much to conceal the world of values, the realm of means to eclipse the realm of ends; we long for the unity of truest being, in which Ideas have reality without being tied to the mediation of instruments, the highest happiness exists without being bound by the myriad conditions of particular positions, in which immediate understanding between minds makes all external modes of reciprocal action superfluous; in which, finally, Creator and created blend in a community of life, for whose dim profundity the noblest mysticism scarce offers adequate expression. While looking up to such a last and highest, we are pained by this world of resistance, of mediacy, of conditioning circumstances, of delay; it disquiets us that we cannot comprehend the beauty of natural forms from a breath of creative vital power, but must think of it as reached along the roundabout path of countless reciprocal actions of a plurality; lastly, it troubles us to know that even in our mental development we are fettered by the mutual working of powers, whose universal regularity stands in chilling contrast to the ardour of our desires. But, far as we are from denying the truth of the *unity* which this mystic ecstasy thinks it discerns, this earthly life of ours assuredly lies, not in *its* sphere, but in that of duality and contrast. We stand neither in our knowing nor in our acting at the motionless centre of the universe, but at the farthest extremities of its structure, loud with the whirl of machinery; and the impatient longing that seeks to escape thence to the centre should beware of thinking lightly of the seriousness and magnitude of conditions under whose sway an irrevocable decree has placed our finite life. If the views of things whence this longing springs are higher, they float like distant clouds, brilliantly lit up with noble

anticipations, at a secure height above all the thorny complexities of our situation here below: they point out no path through the thicket, only one which leads to resignation.

But the life of the human race consists not alone in longing for the goal, in enthusiastic dreams of having come within sight of it, but in the labour of travelling towards it. If we would fulfil this task with self-conscious circumspection, we cannot be too zealous in searching into the conditions imposed even on the development of our mental life in the nature of the scene that surrounds us and the course of the history by which we are drawn along. As in the great fabric of the universe the creative spirit imposed on itself unchangeable laws by which it moves the world of phænomena, diffusing the fulness of the Highest Good throughout innumerable forms and events, and distilling it again from them into the bliss of consciousness and enjoyment · so must man, acknowledging the same laws, develop given existence into a knowledge of its value, and the value of his ideals into a series of external forms proceeding from himself. To this labour we are called, and the most admirable feature in the history of our race is the unquenchable perseverance with which the most prominent intellects in all ages have devoted themselves to the perfecting of the outward relations of life, the subjugation of Nature, the advancement of all useful arts, the improvement of social institutions, though they knew that the true bliss of existence lies in those quiet moments of solitary communion with God when all human daily toil, all culture and civilisation, the gravity and the burden of noisy life, shrink into something like a mere preliminary exercise of powers without any abiding result. In the energy of a freedom that does not aimlessly stray and desire the fruit without the slow growth of the plant, but consciously restraining himself within the firm bounds of a necessity which he holds sacred, and following the tracks prescribed to him, Man will be that which, according to an ancient idea, he is above all creatures—the complete reflection of the great real world, the little world, the *Microcosm*.

# BOOK IV.

## MAN.

# CHAPTER I.

## NATURE AND IDEAS.

Mechanical Explanation and Ideal Interpretation of Nature—Mutual Independence of these Conceptions, and Necessity of combining them—Purposive Creation—The Ideal in the Real—Nature as Fact.

§ 1 HOW reluctantly, how incredulously, do we all listen while obtrusive shrewdness tries to analyse the highly complex structure of our inner nature; and how little are we impressed by the calm confidence that pretends, from general points of view, to foretell the necessary course of development of our particular temperament and disposition!

We think that we are something more than one of many possible combinations of properties; that every attempt to measure us by a standard fitting others as well rebounds from the outside of our being, leaving unapproached and uncomprehended a unique residue, the true self, which, so far as open to observation, presents only an external surface resembling others. What we thus demand for ourselves we are ready also to allow, outside ourselves, to the products of Nature. There is a certain modesty of observation that is ready to trace in each natural form the consistent course of its peculiar formation; following unbiassedly the tracks before it, it seeks to feel its way to a comprehension of the secret meaning that gives life to all things, and that perforce escapes us when, on the contrary, we unsympathetically measure the characteristic variety of their development by general standards. The course of our speculations has hitherto showed no trace of such reverence for the living individuality of phænomena. With seemingly inexorable sternness we repelled the intrusive eloquence of entreaty with which they appealed to us to recognise their special significance; we throughout persisted

in regarding them but as examples of the manifold results to be gained from a general body of laws when by chance the elements of reality come under its operation in this or that combination.

Undoubtedly such a conception of the course of Nature does not in the least satisfy the expectations with which an unprejudiced mind usually sets about the work of observation, for, in fact, did we proceed solely with this view, we could scarcely escape the charge of having unawares eliminated from our view the very idea of Nature. No one understands by that name a mere aggregate of substances indefinite in number, coming together disjointedly from unknown sources and set in motion by arbitrary accidents, whose blind ferment reflects with inevitable but unintentional regularity nothing but the irresistible might of universal laws. On the contrary, we speak of a *kingdom* of Nature; and we desire to see Nature in secure possession of the living proportion between parts and whole—of the mutual relations of complementary and supporting structures that make the smallest fabric more than an illustration of the statical laws carried out in it—of the full rational significance of internal connection. This desire for unbroken unity in Nature may spring originally from the longing of the imagination to find realized its ideal of harmonious existence; it cannot but be quickened by recollection of the problem that now occupies all our thoughts—our own position in this Nature with whose unrest and flux we find ourselves so inextricably united. The view which we form in regard to the scene of our existence will inevitably help to determine the tone of our beliefs about the meaning and ends of our own action. Were we plunged into the midst of an eddying vortex determined in its direction not by any plan for the future, but only by the necessary after-effect of the past, we would fear for the steadiness of the aims of our own striving; the confidence of our hope and the whole joy of our existence depend on our believing in a predetermined unity of the universal frame, in which we have our allotted place, and which contains in the blind operations of Nature the germ

of the evolution that is to be taken up and carried on by intelligent life.

With such views—the confident ardour of which we do not grudge the human mind, that will ever anew create them, even were the attempt to deprive it of them less hopeless—in such a mood, we look back on the way along which we have been travelling, and cannot but find it barren. It will indeed always remain true, and every contrary effort of imagination will reluctantly be compelled to confess it, that all problems concerning the process of realization of a phænomenon, and the possibility of its existence, must return to the already indicated path of a mechanical conception. But it will never satisfy us to hear repeated, for any impressive harmony and beauty in reality, the explanation that it is produced with blind necessity as an inevitable result consequent on these and no other determining conditions, this and no other combination of elements. Though mechanical physics rejoices in the certainty with which it can infer the nearest necessary results from any collocation of things, let chance weave them as it will, we yet cannot believe that the whole essence of Nature is to be found in universal laws which only by means of an accident gain an object to work upon, and so a definite form for their effect. Nay, rather, the true creative Nature, what as an example of the general rule formerly seemed to be but a foil to Nature *as Law* and its unlimited power, lies in the fact that there is a certain variety of effective elements under control of law, that combinations of these elements are not caught unconnectedly, like scattered game, in the connected net of mechanical rules, but that in a definite selection and succession, grouped together, these constellations of circumstances occur, in order to deliver to the steady guidance of the laws, for sure development, the germs of abundant and fair outcome contained within them. To search into the basis and origin of this order is a task whose importance we must not try to depreciate, and which the mechanical view cannot help tolerating alongside of itself.

The attempt to solve this problem this view will of course

rightfully avoid. It will remind us how every explanation must presuppose some actual matter of fact which has to be recognised, and whose consistent consequences alone it can draw out according to universal laws. There is nothing, it will say, to prevent our conceiving the first relative situation of elements in the universe to have been such as to involve in itself all harmony, beauty, and adaptation to ends subsequently met with in things actual. The disinclination to rest in this supposition secretly implies the other and stranger assumption, that disorder is more natural than order, and that a barren chaos is more likely, nay, has almost more right, to have existed than a harmonious condition of things whose establishment required express assistance. How incalculable are the turns of thought! The one view, in its conviction that the deeply felt beauty of Nature is more piously honoured by being derived from a far higher source, finds itself unexpectedly outdone by the other, which indignantly points out how extravagant and unbefitting the dignity of reality is the fear that it is easier for the inferior and confused to come into being than for the opposite.

We do not mean to enter into this contest; we are content with extorting a concession from the mechanical view, which, if it means to take up arms, it cannot withhold. For, referring all beauty, adaptation to ends, and ideal significance in Nature to a primitive situation, composition, and motion of the elements, it thinks, by negation chiefly, to ward off the idea of a special rationally creative origin of things; and yet involuntarily it thereby affirms the fact that the primal condition of the world was a rational order, and that all its own attempts at explanation but turn to account the consequences of this original reason. Now, as regards the immediate ends of its investigations, mechanical science may be right to take account of this reason only in the form of an eternally existing fact, without going beyond it to account for its existence. For in fact any attempt to explain its origin could only presuppose another prior fact, concerning which the same question, with the same result or want of result, would recur. At the

same time, the necessity of bringing explanations of the origin of things to a close by recognising some ultimate datum, cannot prevent us from in a different form making this primitive foundation the subject of new inquiries. For the unanswered question will always come up again—Whence come the endless number of primary relations between the elements of the universe that have to be assumed—come, further, with such a happy mutual complementing and connection of all with all, that the necessary consequence of this primary matter of fact is a system of Nature adjusted to common life? There thus arises, besides the *mechanical* conception of Nature, another with different ends, and a different character in its investigation. While the former, which is strictly explanatory science, everywhere seeks out the real means by whose regular combination everything, great and small, beautiful and ugly, healthy and diseased, is made, the other, the interpretative view of Nature, is indifferent towards these means of realization. Giving up the attempt to explain the origin of the original arrangements which it is forced to recognise as actual, it seeks to compensate for this shortcoming by demonstrating that at least no disjointed plurality of disconnected details, but the unity of a significant Idea, forms the primary datum —an *Idea* which, from its absolute worth, deserves to be the deepest and most solid foundation of the universe, and from whose total import is evolved, with the persuasive constraint of a poetical necessity, the infinite variety of the several primary relations of Nature.

§ 2. Between these two conceptions of Nature we find, on the one hand a contest misapprehendingly waged, on the other an adjustment of it that does not remove all our doubts. We see at once how readily the two can be kept distinct up to a certain point, and the problems of each be separately dealt with. The æsthetic effect of a picture is primarily the result only of the lines which we find it set before us, not of any knowledge of the methods by which the artist succeeded in executing them. In like manner, insight into the ideal meaning of a natural product, into the thought whose visible

manifestation it is called to be, is not gained by acquaintance with the machinery through which Nature succeeded in bringing it forth. Only where a still advancing evolution is among the traits that express the meaning of a changing natural form can any important end be served by searching into the ministering elements and the intermediate processes here employed to realize that meaning, not without there being significance in their selection. Now, if it is a common delusion that the way in which it is painted wholly determines the æsthetic value of a picture, this fault is rarely committed by the student of Nature; he in nowise considers his explanations of the genesis of an event as a determination of its ideal value, but leaves that to be ascertained by other inquirers, who are more firmly convinced of its existence, and think they know how to set about its discovery. Far more frequently, on the contrary, do the ideal interpreters of Nature mistake the boundaries of their activity; they often expect that the meaning of phænomena disclosed by them shall also be accepted as an explanation of how they come about. And yet the knowledge how an event came to pass is no more dependent on the understanding of the thought, perhaps latent in it, than is that understanding upon the knowledge. For no matter whether some Idea directs things or not, no matter, further, what may be the purport of this controlling thought, anything can exist and can happen only in so far as it has constraining causes in antecedent circumstances. So, whatever the Idea ordains, whether and in what form its ordinance is carried out will always be decided in the last resort by a knowledge of the actual means (and of their given combination) placed at its disposal by Nature, from which, when they are there, the same result must, with blind necessity, flow, without, nay, even in opposition to, the bidding of the Idea. These two departments of inquiry thus become severed and lie parallel to one another. Mechanical investigation, step by step, carries back the origin of events to their efficient causes, and makes no objection when another line of inquiry thinks it discovers further a rational meaning in the total course of Nature. The ideal

interpretation brings the connection and internal consistency of this meaning into prominence, and, if it does not repel the demonstration that significant Ideas are realized only by means of mechanism, it is yet convinced that in every case, even were the sum of these means different, the same thoughts would reappear in this different world under other but equally appropriate forms.

Nevertheless there is a limit to this division of labour. In all particular researches it may be useful thereby to compose the strife of the two views, and in this way to avoid the undue mixing together of different problems. Where, however, the matter in hand is the shaping of our theory of things in general, it must be unsatisfactory to keep asunder the various questions that ought here, on the contrary, to be answered from a single source However little our admiration of a beautiful picture may depend on our knowledge of the technique of painting, it yet at least rests on the supposition that the picture is the product of an artist's imagination, which by the unity of its aim combined the motley elements into the unity of a connected manifestation. Were we assuredly convinced that nothing but a disconnected vortex of accidents had brought together the coloured points into these outlines, could we not at least cheat ourselves into belief of the contrary, our admiration would be sensibly diminished by the consciousness that it is only we who put into these forms a significance that does not look out from them as the expression of their own meaning. The same doubts are sure to stir us where we have to do with the total conception of reality. We cannot regard Nature as a kaleidoscope that, shaken by chance, produces forms that look as if they had a meaning; if there is to be any meaning in this meaning, we must seriously assume and hold fast the conviction that the same power whence proceed the efficient capabilities of things, also directly includes that moulding imagination which assigns to these capabilities their points of application and their significant lines. It is not therefore sufficient to suppose that along with the mechanical

course of Nature—nay, in it—there is *also* ideal significance. On the contrary, any theory of the universe that aims at completeness must comprise some definite representation of the relation in which in Nature the *archetypal thought* must stand to the *efficient* causes of its representative *realization*.

§ 3. This is usually accomplished in one of two ways, each of which soon brings us into peculiar difficulties.

One way unhesitatingly applies to the relation of Nature to its source our own relation to our products; it derives the harmonious organization of the world's course from the designing and adapting wisdom of a self-consciously personal God. We will not too harshly join in the charge laid against it of the self-conceit with which it presumes to understand divine purposes, the universal laws of the mechanical course of Nature do not lie within us as innate cognitions, and yet it is possible to master them at least in great part. Why should it be impossible for thoughtful observers of Nature, not arrogantly teaching but modestly learning, with a like degree of approximation to gather from comparison of experiences, not indeed all the designs of God, but much that it may with confidence put down to these, and utilize in the methodizing of other phænomena? Besides, the truth of its fundamental thought would not depend on the possibility of applying it effectively throughout the examination of all the details of the course of things; we do not doubt the correctness of the most general points of view of our mechanical system because the complexity of objects often only allows of a general and inaccurate application of them. In like manner this view also would remain unshaken, however little it could fully explain; enough if, along with the general impression of Nature in its favour, no special experience raised any insuperable difficulty.

But, however successful this view may be in its efforts to explain given facts, it will find it harder to overcome the more general difficulties involved in the transference of human modes of action to this infinitely higher case of creative activity. That will alone can have ends, whose volition is not tantamount to

execution, whose purpose, on the contrary, hindered by the resistance of an independent nature of things, becomes converted into an aim to be reached in a particular way. Action adapted to an end is to be found not where an absolute moulding power produces everything directly out of itself, but where a limited efficacy needs means for the achievement of its results, means which it can make serviceable to its ends only on condition of its accommodating the character of its own designs to the nature of this foreign material. All that we human beings can effect is dependent on this relationship, dependent on our being environed by a realm of foreign elements, working according to fixed laws independent of us, connected together in modes exquisitely traced out beforehand —dependent also on our being organically connected with these in the most intimate manner. Thence arises not alone the possibility of any of our inward stirrings, of our thoughts, intentions, and resolutions coming to any effect in the outer world—from the same source spring also the visible and living forms of our action. Those ultimate moving-springs of our exertion are all themselves without form: the pleasure which we seek, the sorrow that oppresses us, nay, even all nobler longing of the imagination for something higher, is at first a surging within us without any definite direction; not till they are in course of being realized does the essentially brief and vague meaning of our wishes expand into a complete phænomenon, and acquire characteristic features, appearing in forms fitted to overcome definite hindrances and in modes of utilizing external impediments. Were the independent outer world, from whose educative resistance we gain shape, to be annihilated, the visible image of our action would relapse into a unity of purpose and fulfilment that would elude our apprehension. Now we cannot transfer to the Divine Being, the source of the universe, those conditions which enable us to understand the results of our own action for an end. Believing, as we do, that we comprehend the significance of many special arrangements, this only makes more obscure the origin of the world of forms in general within which

it is possible to speak of a plan. What else would we fain think as the final quickening source of creation in the being of God than that spirit of holiness, goodness, and beauty, in which yet we would vainly strive to find a necessary direction of His creative energy towards the production of the definite natural forms that surround us? Only if an independent world of matter faced this energy could we understand creative power being driven by the peculiar character of this foreign condition of its working into definite forms of expression of its indefinite tendency.

This view thus ends in a contradiction hard to reconcile. Along with the creative wisdom of God, the source of the world's ideal content, appears another power, a dark background, by which the formless ray of Ideas is first refracted into a play of visible forms. We cannot get rid of this foreign and unfathomable element, and yet we are aware of nothing that entitles us to retain it; while its original nature and its regularity yield to us, for whose development obstacles are necessary, at once resistance and educative stimulus, they can offer neither to the Divine Being.

The other conception of which we have to speak avoids this fatal opposition between the adaptive purpose and the means of its realization by directly blending both. According to it, an Infinite, a dreaming soul of the universe, at once matter and Idea, pliable material and shaping thought, pulsates in all phænomena, and from the unity of its impulse of development evolves the harmonious beauty of things. Not guided by an external consciousness, not burdened with the obligation to accomplish ends not spontaneously its own, on the other hand not limited in its productions by having to accommodate them to universal laws, which indifferently face its creative impulse, the actual world is a spontaneous, perpetual self-evolution, at once grave and gay, the aimless surging of a moulding fancy that has infinite delight in the manifold unfolding of its ingenious wealth of forms. In statements of this kind, this conception not only exhibits itself as a vivid, brief, and pertinent expression of problems which we

do not here create for ourselves, but, on the contrary, find involved in the nature of the subject, but likewise expresses that careless romance of youthful reflection which fancies that in the statement of problems it has also their solution. Throughout all periods of human culture this mode of conceiving things has been repeated in various forms without making any material advance towards the attainment of its end; even its most recent modes of expression, to the echo of which our imagination has now become accustomed, are hardly more than a more pompous repetition of thoughts that from the dawn of antiquity have been in the mind of all who uttered the word Nature or φύσις.

An unpleasant contrast of light and darkness can be softened not only by brightening the latter, but by dimming the former; we are almost disposed to think that for a similar reason human thought has a natural tendency ever anew to plunge into the abyss of this mystic view. For, while it reduces the idea of a creative self-consciousness to that of an unconscious reason that is at the same time self-moulding matter, it diffuses the deep obscurity that in the above-mentioned theory enveloped the relationship between the two there clearly discriminated terms, as a comparatively agreeable vagueness over the whole conception. The intention is indeed that the whole world of natural forms shall proceed from reason, not as an external drapery, but as its own outer aspect, that the reason shall not labour from without on foreign material, but merely reflect in consciousness what has been produced by its own unconscious action; but this end is unattainable, unless we first of all dilute the significance of the question that led to this attempt at a blending of the ultimate opposed terms. For as long as we comprise under the name of reason what we must hold to be the animating thought of the world of intelligence—the Ideas of holiness, of goodness, and of bliss—we cannot regard this realm of forms constituted by the stars with their minerals, plants, and animals, as the native outer aspect of that reason, but as an external garment of accidental and inexplicable origin that hangs about

it, fitted perhaps to interpret its inner life by its drapery, but certainly not entitled to be taken for the only possible and exhaustive exterior of this interior. Only if we dilute the notion of reason almost to apathy, and from the first seek in it nothing but a phantasy dreaming of future magnetism, and seeking to pour out its unrest into the expansive impulse of the plant or the activity of the animal body, only then does the world of natural forms become the exact expression of this Idea, the true outer aspect of this interior. But then the meaning of the question to which we were seeking an answer becomes altered. For the unity pervading all Nature, to account for which this whole view was elaborated, had serious value for us only because it alone rendered possible the full subjection of the actual world to the rule of that truly spiritual ideal world from whose content shines forth in clearest light the absolute worth of moral Ideas. The desired end is not attained by supposing the existence of a soul of the universe that knows and is only phænomena, whose inner nature shapes its outer, whose outer models itself upon its inner nature, while nowhere is anything to be found that by its absolute and infinite worth consecrates this play of forces. The ideal source, the creative thought, is here burdened with an impulse to definite shaping that does not veritably proceed from itself, and is limited to becoming conscious of that which this impulse sets before its view. I cannot see that this result is more inviting than the issue of the first theory, already stated. If there we found discrepancy between adaptive wisdom and the realm of means of realization, the former was at least independent in its designs; aiming at truly spiritual ends, it appeared in relation to the latter as the ruling power contrasted with the ministering material; the second theory recognises only the material, ignoring the higher power above it. For its soul of the universe is nothing else than this foreign and unfathomable element, the dark background in which the other view also seeks the definite forms for the realization of the divine purposes. Brought into exclusive prominence, this background

here appears endowed with consciousness of what it is, but it misuses this spark of heavenly light only to round off into systematic unity that self-sufficiency and purposelessness of a motley play of action that formed our charge against the dreary mechanical theory of the course of things.

§ 4. Neither of these two views accomplishes its end; they both leave unsolved the problem—but to fail in solving it is not discreditable to human sagacity. We shall be exposed to the same danger at the end of our speculations, but the very next steps we have to take should not be taken without an acknowledgment of the unmastered enigma which we provisionally leave behind. Our whole theory of the universe has three starting-points. We find within ourselves a knowledge of universal laws, which, without themselves giving rise to any particular form of existence, force themselves on our attention as the necessary and immediately certain limits within which all reality must move. On the other hand, we find within ourselves an instinct bidding us discern in Ideas of the good, the beautiful, and the holy, the one indefeasible end whence alone reality derives any value; but even this end does not bring to our cognition the special form of the means by which it is to be attained. Between these two extreme points extends for us a third region—that of experience—boundless in the wealth of its forms and events, unknown in its origin. We can track into this wealth the universal laws imposed on all phænomena; and in the first part of our discussions we tried to set forth their undiminished and indistinguishable validity in *all* departments of reality. In this wealth of reality we may also seek the radiance of those Ideas which give worth to all being and doing; and in the last part of our discussions it is our purpose to follow the traces of their presence and formative energy in the whirl of phænomena. But the more, while endeavouring to fulfil one of these two tasks, we become absorbed in the details of Nature's course, the more does Nature's own originality again come to the front—the independent wealth of forms in which it envelopes the universal and colourless laws

of mechanism, and the self-will with which it carries out Ideas not always in what seems to us the shortest way, but by circuitous paths and in accordance with general and far-reaching habits of working. Far from being a collection of single contrivances and instruments fitted to meet the several requirements of an ideal world, Nature, on the contrary, is above all internally consistent—an organism, a great economy, ready indeed in its totality to minister to the totality of Ideas and to receive from it a prescribed sum of tasks, but reserving to itself the planning of their performance, and not extemporizing a special momentary effort to meet each several need. Events, unmindful of their tasks, seem for a long time to give themselves up to the complex variety of their own play of forms, frequently to follow an indefinite path leading past their ends, even to take a direction the opposite of that which our precipitate imagination would assign to them in the interest of the highest ideals; only an eye that, instead of the section of Nature—small as to both space and time—that lies open to our observation, could survey the whole of it, would discern the final prevalence of absolutely excellent ends amidst this apparent confusion. But even this is a conception which we have to go far beyond experience and observation in order to grasp; and although we would not hinder its being silently kept before our thoughts as an end to which we have to approximate, we must yet for a while turn away from it Our inquiries must for the present be confined to ascertaining what leading usages and what modes of operation Nature actually unrolls before us; with what unity and what connection in her several phænomena experience makes us acquainted; lastly, what is man's position in Nature, and what the conditions, favourable, unfavourable, or moulding, which she has attached to his development.

## CHAPTER II.

### NATURE EVOLVED FROM CHAOS.

Doubt as to the Supremacy of Ends—Created Beings as Ends in themselves—Ends and Results—Development of things from Chaos—Spontaneous Growth of Order from Unorder—The Elements of Chaos—Inherent Purposiveness in things and in their Operations—The Unity of Nature considered as a Product of manifold Actions and Reactions.

§ 1. WE have just devoted our attention in all simplicity to that view which, in spite of the momentary failure of our attempts to approach it more closely, has in its favour the unshaken testimony of the inherent truth of its aim, the living internal unity of Nature It will be well now to listen to another voice, that of the spirit of negation—I mean of that very mechanical conception to which, now that we are on the point of finally turning away from it, we must grant the opportunity of a final vindication.

What real foundation in experience, its advocates will ask, is there for the opinion that there is in Nature a unity such as requires for its explanation the comprehensive design of one Creator, or the impulse to evolution of a single substance underlying the multiplicity of things? We can understand that there is in human nature a desire to verify this view of Nature; but in what given facts is there any proof that this desire can be fulfilled, that this systematic inner vitality and unity of Nature is real? Must we not, on the contrary, acknowledge that after all only some few of its characteristics and events suggest to us the idea of purposiveness and ideal consistency, that then, without good grounds, we infer from these particular experiences a general harmony and purpose, and from the vantage-ground thus gained we conclude the

necessity of a rationally creative being? That, finally, we hence draw the deduction that there must be reason and purposiveness in Nature even where (as is unfortunately so often the case) we certainly cannot prove it

A short review may suffice to show us how our thoughts have proceeded. The living body is the usual starting-point of such discussions. We overflow with admiration of the extraordinary fitness of its formation for its ends, and repeat the common assertion that in it all is at once means and end. How many parts are there still in it whose end no one as yet knows, nor can we actually know that these have any end at all, and are not aimless products of the formative forces, but we merely take all this for granted on the warrant of the above unproved general assertion! The animal world likewise presents in many instances a dazzling appearance of adaptation to ends, but undeniably, at the same time, much that is inexplicable, much that, as far as we can see, is purposeless; myriad oddities of formation that are easily understood as sports and casual effects of a Nature joyously breaking out in all possible directions, but only with laboured artificiality can be construed as products of deliberate design. Still less can the idea of predetermined adaptation be traced through the vegetable kingdom, where no end can be pointed out beyond the mere existence of forms, whose arrangement, duration, development, and power of self-preservation present endless differences in kind and amount. Lastly, is not this whole world of life embraced and supported by the globe and by the space of the universe, while in the geological formation of the former, and in the distribution of the masses of the latter, no human ingenuity can discover any pervading adaptation to ends—nay, perhaps would not even wish to discover any? On the contrary, we breathe with a certain sense of relief when we perceive that here at least there underlies the much-admired endless calculation and design of the course of things an impressive stupendous reality that, without pretending to point to anything beyond itself, stretches as a steady tranquil barrier before our restlessly searching thoughts. Shall we add that

the examination of events would lead to the same double result as that of forms? Further, that along with indications of design, confused inexplicable accidents also present themselves; and still further, that at last, weary of eternal calculation and planning, we not only resign ourselves to, but accept with a feeling of relief, the thought of a predominant fate willing nothing but itself?

It will, perhaps, be allowed that this is not an incorrect rendering of the confused and indistinct moods into which we often find ourselves plunged by the failure of our attempts at explanation; but our partiality for the idea of an inherent unity in Nature will not at once yield itself captive to these counter-representations. Above all, it will recall that it has long since got rid of the hopeless tendency to seek external ends for every creature, every phænomenon, and every single occurrence—an intellectual habit, no doubt, apt to end in incompetence to discover either the urgent importance of those ends, or the indispensableness of the means of fulfilment which we find present. The end of every creature lies rather in its own existence, and if a salutary and harmonious action and reaction between things different is a broad fact of experience, yet the real import of this conception of Nature lies not in the mutual relations of the several beings to one another, which we very imperfectly understand, but in the inherent purposiveness of each one, whose different constituents are woven into the whole of a firmly-knit organization. No external utility forms for each creature the limit with reference to which all its properties are formed, but the Idea of its own existence is the supreme end to fulfil which all the details of its structure work together as means.

We certainly would rather not return to the jejune interpretations with which this tendency to seek in external utilities the justification of the existence of things has disfigured the conception of Nature. At the same time, the introduction of an *inherent end*, such as the special Idea of each being would present, in place of an *external* one, does not appear to us calculated to increase the stability of the view in general.

For it would furnish a convincing proof of the systematic unity of Nature and of the intelligent operation of the creative force only if, first of all, apart from all experience, it could show what kinds of events and what forms of existence must, on account of their absolute worth, be the necessary ends of all reality; and if it could further show that only such causes and effects as promote the realization of these ends form part of the connected course of Nature, all others, though in themselves neither inconceivable nor impossible, being excluded from it. Only in this way would it produce in us the conviction that those phænomena, whose mutual harmony we are to be afterwards exhorted to admire, have a right, as ends in themselves, to exist solely for the development of their own Idea. But the usual course of inquirers is different. They too soon and too simply take account of the facts which they see actually before them, and incautiously taking the routine of events in which we habitually move as in our vital element, for an excellent state of things—or even for the most perfect conceivable—they, of course, do not then find it difficult to demonstrate the faultless adaptation of all Nature's arrangements for its establishment.

I think that if for each animal species we set beside the evident instances of adaptation in its formation, which we understand, all the unaccountable things in it which we do not understand; if we set beside the nimble dexterity of the animal in one direction its conspicuous helplessness in another, beside its power of self-preservation against one class of hindrances its complete defencelessness against others; if we thus comprise in our determination of an animal family the whole sum of positive and negative attributes as presented in experience, all happiness and inevitable misery, and in this total behold the Idea which the family is meant to embody—then it is easy to show that the organization in all its details is fitted with perfect adaptation to the fulfilment of *this* office. For as long as all that is and happens exerts precisely the amount and kind of effect which according to universal laws it ought to do, so long will each result effected contain exactly

—neither more nor less than—what was fixed by its antecedent causes; and on the other hand, the causes will determine not more or less, or other than what subsequently becomes manifest in the result. Whenever, therefore, we look at the result in the light of an end to be fulfilled, we must always and necessarily regard the sum of its causes not merely as a system of means accurately adjusted for its fulfilment, but as the only one adequate to the discharge of this office. No such inherent consistency, therefore, which we may observe in any creature, can prove its having originated in a designing intelligence until it has been convincingly demonstrated that the whole constitution of the creature as we have it before us is entitled to be considered not merely an inevitable result, but a predetermined end. By itself that consistency would not even protect us from the wretched witticism, that the hunchback is perfectly fitted to be a hunchback. Lastly, were the world quite different from what it is, filled with other beings, moved by other forces, had it sprung from the most barren chance or from many chances, it would still possess this formal character of designed consistency with itself; everything that could exist and maintain itself within it would be the bare and exact expression of its causes, and these causes would always be the adequate and only system of means adapted to its realization. It scarcely requires special mention that all events, however they might succeed one another, would to the student of them always seem to express some meaning, and that consequently they might always be regarded as the foreseen and predetermined forms of manifestation of that particular Idea which they chanced to suggest to the observer. The theory under consideration would, following this track, end in a meaningless play on words.

§ 2. Its supporters are sure to meet these objections with the reply that they do not take this track, or at most use it only as a starting-point for their speculations. They will unhesitatingly grant that the relation between an effect and the sum of the causes that actually bring it to pass is invariably that of a nicely adjusted system of means to its end; but main-

tain that precisely on this account the doctrine that Nature had its origin in the unity of designing and adaptive wisdom is not based on this merely formal adaptation, which occurs no less in the unintelligent and the diseased than in the intelligent and the healthy. It is based, on the contrary, on the significant import of actual effects, which makes an undesigned convergence of causes for its realization highly improbable. In studying a single organ of an animal body, we may make the experiment of regarding its function as a consequence of its structure, and not its structure as a designed means for the discharge of its function. It may be said that an image is formed on the retina, because the mechanical forces of the animal germ, as it was, could not help forming an eye refracting rays of light; when the hand involuntarily seeks to grasp the object that has stimulated the sensitive skin of the palm, this movement may be merely the inevitable consequence of a transmission of the stimulus that could not but take place with the existing connection between sensory and motor nerves; in short, it may be as Lucretius declares—the animals may be able to walk because they have knees, not have knees in order that they may walk. But how far shall we care to carry this way of looking at things? The organism is constituted not merely by an accumulation of such pairs of structural relations and the operations proceeding from them, but by innumerable such pairs being combined in a form that makes it possible for them to work together for the realization of a harmonious plan of life. Now is it credible or conceivable that, without any directing purpose, in the same corporeal structure which possesses *here* a reflecting eye, a prehensile member should *there* come into being, capable of grasping seen objects, in a third place, teeth with which to break up what has been seized, in a fourth, organs of digestion fitted to act upon food in a manner beneficial to the whole array of parts? And this apparently predesigned connection of parts recurs constantly also in the formation of the single organs. Again, shall we ask whether it is credible that without any directing purpose a conglomeration of elements should have been formed

whose blind, mechanical further development necessarily occasioned the origination of transparent, translucent and opaque membranes, being more or less refractive, and at the same time the arrangement of these parts in just such positions, and at just such distances as was needful in order that a cone of rays falling on this eye should again converge on an extremely minute point in the back of it?

We do not deny that in the actual connection of things organic formation is carried on merely by mechanical tradition; but without the assumption of a designing consciousness, we believe it is impossible to account for the origination of the germs whose blind and necessary evolution constitutes the course of Nature. And now that we have once had recourse to this guiding hand, we make unquestionably the inference laid to our charge—we believe in its co-operation even where we do not see it. For it is natural to imagine that we may find in it an unguessed justification of the shortcomings of the course of things that seem to militate against the omnipresence of designing wisdom—a justification consisting in the content of a plan of the actual universe which we do not profess wholly to comprehend; while, on the other hand, without that wisdom the countless instances of particular excellence and intelligence that force themselves on every unprejudiced mind appear unaccountable. Moreover, even where we are content not to understand what are the ends of the universe, we everywhere come across forms of being and acting that distinctly show they are the results of a comprehensive plan. The host of actual living creatures is divided into genera and species, which clearly and naturally fall into a graduated series of more or less allied forms; however obscure may be the order and law of this series, no less powerful is the total impression which it creates, of a unity of formative volition, a constancy reigning throughout, which does not allow the manifold actual world to consist of disparate individuals, but arranges it as a well-ordered realm of things.

§ 3. On such considerations rests the abiding and persuasive force with which this view of Nature ever anew asserts itself

against all assailants. Doubtless even the advocates of the mechanical theory will in the end have to acknowledge the force of these arguments, but it is of consequence that this acknowledgment should not come too early, and they will be able justly to urge much more than we expect against the statement just made of the doctrine of an organic unity in Nature.

First of all, they will, not without reason, observe that our admiration of Nature's products is frequently bestowed not so much on the inherent significance of their forms as on the mere number of parts which we see united into a whole, and on the variety and alternation of the movements springing from their combination. As we are impressed by the mere magnitude of things, so also are we impressed by the number and variety of their internal relationships, no matter what be the final form of the result; and wherever we see a great deal take place within small compass, we are secretly disposed to seek the productive source in a power superior to merely physical and undesigning forces. And yet we know and can scientifically prove that a very small and insignificant number of elements, and very simple relations between them, are quite sufficient to form the source of an endless play of exceedingly varied and changeful forms of development, which, did they stand embodied before us, the human mind would think incontrovertibly exhibited the prevalence of adaptive design. Whoever bears in mind that no organized creature comes full-grown into being, but that Nature itself evolves it laboriously and by long circuits out of its germ, will often be inclined to conceive that germ itself under too complex a form; transferring to it the capacities for all the details of subsequent development—as if these were not successively produced and heightened by reciprocal action between the growing organism and its environment—no doubt it will seem to him incredible that the elements should ever have come together in this mysterious association without the influence of an overruling purpose. Closer acquaintance with the manifold effects that may flow from comparatively very

simple causes, will gradually lessen this doubt without ever wholly removing it. For ever and anon the thought will recur—however simple may have been the primitive germs of natural products, it always remains an unaccountable marvel how out of the infinite number of conceivable combinations of elements that chance might have formed, this appropriate selection should have found its way to realization.

But yet this feeling of wonder the mechanical theorists can show to be based on a false assumption. For our amazement would really be justified only if we found that all the other less significant or quite unmeaning associations of elements had from the first been withheld from trying their luck and occupying so much space in the actual world as their capacities allowed them. Were the actual world really such a small extract from the infinite realm of potentialities, and had that which does not fit into its order and does not appear never even made any attempt to find place in it, then assuredly we could ascribe this realized extract to nothing but a providence working towards ends and towards nothing but its ends But we cannot see that experience either constrains or entitles us to make such an assumption. And if we do not make it, then we can justly reply that for the picking out of a few cases from the infinite region of potentialities no other review, judgment, and selection is needful than such as the mechanical connection of things must of itself necessarily exercise.

For let us start with the idea of a chaos, and let us conceive this as chaotic as may be, supposing therefore that there was in it no predominant tendency whatever to any particular grouping, but that, in the language of the atomistic thinkers of antiquity, all in it moved confusedly in all sorts of manners and all sorts of directions : in such a seething mass any combination of two or more elements will be just as likely to occur as any other combination of the same number But the fate of these groups will be very different. None of them indeed will be prevented by a selective providence from crossing the threshold of existence, but a countless multitude

may be of such a kind that the inherent regularity of the mechanism which controls the reactions of all cuts them off from any duration and any development. Perishable products, they either disappear at once from want of any inherent equilibrium to secure their preservation, or may be perhaps condemned not even to enjoy a brief moment of actual existence, but to hide themselves in the stream of Becoming as products ever about to be, but inevitably falling to pieces before coming to completion. But others, whose relations were such as at least to permit of their becoming actually existent, have a very different lot The case is not in reality as the defenders of the designed unity of Nature would sometimes have it appear; we are not alike surprised by distinct traces of intelligent contrivance in all formations that have attained to actual existence. Alongside of things complex, manifold, yet in their manifoldness orderly and ideal, stand simple, undeveloped, rigid forms of being, which hardly any one could deny might possibly have sprung from the caprice of accident Even the animate kingdom contains a number of genera of differing value, many ill-poised, destined to perish quickly, though reappearing with equal readiness in the course of events; while others, with more numerous and delicately adjusted parts, form a varied harmony of mutually interlacing operations. When we survey creation, we find it presenting not merely an extract of the best, but great and small, simple and complex, perfect and imperfect are mingled together as we could suppose them to have sprung together from the impartial haphazard of chaos. But one thing is absent from this manifold world—that which is perverse and essentially unadaptable to design, and to this mechanical laws, on account of its inherent contradiction, could allow no permanent actual existence. Transitorily, of course, as is shown by the great host of diseases and so many deformed specimens of creation, such contradictory products do occur; but for all generic forms that are permanently to form part of the abiding order of Nature, internal adaptability is synonymous with possibility. It is conceivable that the present creation

was preceded by more imperfect efforts of Nature, nay, by contradictory monstrous formations, which while they could not themselves endure, yet having perished left the elements so combined as to give rise to better products. Without, however, indulging in this mythical idea, we may in general assert that, whether the perverse was there or not, the fact that it could not be mechanically maintained would prevent its continuing to exist. But the actual world contains out of the infinite number of combinations of elements that an irrational chaos might yield, not a selection made by designing purpose, but the smaller sum of such forms as the mechanical course of Nature itself tested in the endless alternation of its phænomena, and selected for preservation, as wholes fitted for ends, out of the vanishing chaff of the perverse, which it impartially brought into being, but no less impartially allowed to perish.

Now, it will be objected, is all this less wondrous? How comes it that this mechanical course of Nature is always favourable to the rational, and expels the irrational from reality? The rationality of things which we meant to explain is by no means identical with the mechanical absence of contradiction that has unobserved been put in its place, but consists in an inherent harmony and consistency which, far from being a mere absence of defects that simply guarantees the settled existence of phænomena, by the ingenious excellence of its content unites the most various elements in the carrying on of a common and highly significant life. How could mechanical Nature—which must be contented with all that satisfies its universal laws—be the source of this superfluous perfection? To this the mechanical theorists would, however, with justice reply, that the evidence of experience is by no means in favour of the invariable rational significance of all creation, and yet only if it were invariable would this perfection transcend the capabilities of a mere course of Nature. In fact, it cannot be demonstrated that all parts of Nature indicate ideal significance and definite ends; along with myriad phænomena that undoubtedly do create that

impression, occur myriad others that comport themselves as if they were unintentional and incidental results of a chance-formed combination of atoms—results which in accordance with a deliberate plan by no means *ought* to have come about, but which *have* come about, and once in existence have maintained themselves, because they were not out of conformity with the mechanical conditions of existence. Thus mechanism has perhaps produced much that to a creative Idea—supposing such—would have been unimportant; and, on the other hand, perhaps there is much which mechanism has not realized, and which the Idea would have desired, in the existence of which it would have strongly interested itself. For who indeed would undertake to prove not merely that all that exists is rational, but further, that all that is rational exists? Do then all fair dreams perish, and is the actual all that can be desired? Does not even imagination in its independent creations add fresh ones to the list of forms of Nature? The actual world does not show those winged angel forms in which religious art delights, and yet we cannot show cause why these forms, to whose ideal significance our reverence is a testimony, have not deserved to exist: it may have been contrary to the means and laws at the disposal of Nature for her work. On the other hand, Nature profusely brings forth giraffes and kangaroos, and we do not comprehend why it should have been indispensable for the complete expression of the highest Idea that the curious modes of locomotion rendered necessary in these animals by the disproportion of their legs should have been represented in the actual world. I fancy I hear distinctly the indignant exclamation that doubtless even in these facts there is a deep meaning, though our human short-sightedness cannot fathom it. That I do not dispute; I abide by the confession of such short-sightedness. But the question with which we were now dealing was whether belief in all-pervading deliberate design on the part of the creative force is justified or compelled by *experience*. We do not deny that it may have other solid foundations; but a significance and a profound ideality that

in many cases we absolutely can *not* discern, does not hold good as an experimental proof of the rationality pervading all creation. If we would put into words the impression made by Nature directly, not modified by any theory of the schools, we can only say that there is in it much that is purposive and harmonious, yet that on the whole its existence seems to have no special significance, and that on the other hand we do not find realized all that might appear to offer a possible end to intentional design. And this is the relation which it is quite natural to expect, if we conceive the world as sprung from a planless chaos, that can give birth only to the possible and self-consistent, but within these just as readily and easily to the meaningless as to the most ingenious.

§ 4. With all this the mechanical theory has yet by no means been freed from the stain of incredibility attaching to its affirmations. Of course it must be allowed that every creature, even every organically living creature, consists of elements that were not always so conjoined, but had to be brought together even by a creative purpose, if such a purpose was active in the setting up of the primeval germs. It thus was possible for these elements to fall into such relations to each other, and neither the path by which they had to travel from their previous position to this point of union, nor the movement towards unity itself, could be such as were contrary to their nature or to the mechanical laws to which that is subject. And then it may further be maintained that any motion which can be given to the elements by the propulsion of an ordering hand, could also possibly be given to them by the purposeless propulsion of an accident. In fact, it needed only a certain succession of gales in alternate directions gradually to raise the pile of the pyramids from the several grains of sand carried by each. The adherents of the other view turn away silently from the monstrous improbability of such arguments, refusing to be satisfied with the merely not-impossible, and requiring positive grounds why the elements of chaos have been driven precisely into the actual combinations, in addition to which—according even to the

mechanical theory—an infinite number of others were equally possible.

And now it really is time to take back a wholly unwarranted assumption which we have above allowed to be made, and after the removal of which the mechanical theory will for the first time feel the full weight of the arguments brought against it. There is evidently nothing in that phrase of the atomists of antiquity, that at the beginning of the world there was infinite motion and mixture in infinitely various ways and directions. No one who means to think clearly can form any idea of the existence of such an infinite agglomeration of countless possibilities. However manifold we may suppose the original relations of the elements to have been, they must yet have constituted a total condition of the universe that was exclusively actual, and it is impossible that the other infinitely numerous conditions of the universe that might have been in the absence of this one, can have co-existed along with it. Hence the abyss of indefiniteness, to which we formerly gave the name of chaos, is unthinkable, and any attempt to set distinctly before ourselves the origin of natural forms must start from some particular primitive state, which, because it was that and no other, from the first excluded from actual existence much in itself possible, while with reference to much else it contained not only bare possibility, but a more or less immediate and urgent positive reason for realization. Now, how on the mechanical theory is this primitive state to be conceived?

Its advocates have first of all no reason and no right to assent to the doctrine of the ancient atomists, that the elements are like essentially identical building stones only cut in diverse shapes—a doctrine itself the offspring of that mistaken straining after unity which cannot tolerate any abundance of original plurality. On the contrary, they will assume an innumerable multitude of originally diverse elements, which are not merely seized upon by a shaping movement from without and welded together, but whose innate forces exert an essential determining influence on the

results of their combination. These forces are not externally attached to them like subsequently and arbitrarily bestowed capabilities, but are the expression of many and various inner states that can find in the kingdom of space-phænomena no other mode of manifestation than the monotonous attractions and repulsions to which all physical and chemical effects are reducible. And finally, least of all has the mechanical theory occasion to tread in the footsteps of Materialism, with which (though they are really wholly indifferent to each other) a current misapprehension is apt to identify it. As it must acknowledge the power of intelligent life in experience as a fact, it can have no hesitation in conceiving the spark of this inner life as already stirring even in the original supersensible elements from whose regular reciprocal action it holds the show of extended matter to proceed and the universe to be constructed. Not, indeed, as if it could apprehend the power of mind as a single quickening directing breath, as an effulgence spreading over Nature, it merely breaks up this surging current into a countless multitude of sharply discriminated centres of radiation, each of which (in itself indivisible) forms one of those reciprocally acting atoms which are in truth the active causes of phænomena. When we thus expand the originally given elements of the fabric of the universe, the domain of chance becomes correspondingly contracted. We do not expect to see the ingenious forms that fill Nature crystallized all at once from the indefinite vortex of a motion that drives the atoms externally against one another, as if the formation of an organic germ, or even of an inorganic shape, were completed with the ceasing of the shock whereby myriads of inert and patient constituents were brought into a mutual contact indifferent to all. Here as in mental life the external impetus we look on merely as an occasioning cause so far approximating the different beings that one comes within the sphere of action of another; it is the force inherent in both and the now awaking vital connection of their natures that determines the further course of the development, conducting it to far greater variety of form

and to infinitely deeper meaning than could ever have been done by the poor impetus of the external motion, had it been left to itself.

We may doubt whether even this inherent vitality of a multitude of (after all) scattered elements can explain the accordant harmony of the forms proceeding from them; closer examination shows, however, that in all the elements a certain purposiveness in action not merely is compatible with, but ought hardly to be sundered from, the fundamental conceptions of the mechanical theory. We are all agreed that the forces with which things act are not merely subsequently stamped on their completed nature; he who speaks of the force of an element means that the force belongs to *it*, not as an accidental possession that might be wanting, but as the necessary and consistent outcome of its own being. But not even this fully expresses the opinion which we are bound to hold and do hold. Should any one assert that this very necessity and consistency of every being causes all its reactions on external stimuli to lead but to its own annihilation, or at least to the deterioration of its internal states, we would perceive from our involuntary revolt against the absurdity of such an opinion how confidently we had tacitly presupposed a contrary relation. We are ready to acknowledge that in a composite structure the relative situation of the parts may be so hopelessly distorted that every reaction attempted by the whole but hastens its destruction; but we do not doubt that every simple being will of itself develop only such effects as are fitted to bring the position into which it has accidentally come into accordance with the conditions of its permanence. In so far as its activity has reference to this task of self-preservation, it will appear to us necessary and self-evident; less confidently shall we add the conjecture that it further includes a striving after self-development and perfection. The term *striving* at any rate will not properly apply to what we mean. For, without being acted on from without, every being will even to our perception persist in its original repose, and no reaction will be got from it except by means of an external

stimulus. Such reaction is itself no systematic activity evolved from itself by the imagination of the being through contemplation of the image of a more favourable situation; on the contrary, it remains the necessary and inevitable consequence of a contact of this being with that stimulus. Hence, limited by the call made upon it, this force must be content to produce the small element of purposiveness to which the call gives rise, while ready to respond to a subsequent stimulus with an equally purposive element of working, it will evolve out of itself no far-reaching plans of connected development.

Now, without setting up this view of a principle of progress inherent in everything that exists, as a theoretical tenet, we may yet make the experiment of introducing it among the means of our explanations. For from among the countless original facts, some of which we must take for granted, the rational and significant are not to be excluded in favour of the meaningless. But we do not affirm more than that this feature of inherent adaptation to ends is part of that actual nature of beings to which the mechanical theory applies its laws. Applied to such a nature, these laws will tend to produce a significant world of forms with the same necessity with which, brought to bear on a different original nature of elements, they would have given rise to a manifold sphere of forms other than that which calls forth our admiration and our studious interest.

Perhaps to many this speculation will appear all of a sudden to alter materially the boundaries of that which even in our own vocabulary has hitherto been styled mechanism. We may seem to be opening the door to a mysticism that threatens to blur all those outlines of our convictions which were before so sharply defined. Nevertheless we have here merely brought into prominence a phase which always belonged to our conception, and of which no mechanical view, however strict, needs to rid itself. Every calculation, as soon as it becomes more than a mere statement of numerical relations, and is brought to bear on the actual things, must assume the

independent nature of such things. What things in themselves may be, and how they intend to act upon each other, is their own affair, and no mechanical theory can *à priori* fathom the depths of their being, and assign to them but a few properties, a few simple forms of action, to the exclusion of others. Not till these properties and modes of action appear as magnitudes, and magnitudes reducible to a common standard of unity, will mechanism be able to show that the being of things (in itself not determinable by it) has by this step fettered itself for the future, and that henceforth the value and the final form of its effects are fixed by the universal laws that everywhere govern the result of any definite relation between magnitudes. Thus it is left to the nature of things to choose with what properties, what internal impulses it shall enter the field of possible calculation; but after it has once adopted a particular form of being and action, it can no longer prevent the consequences of its adoption being in each case entailed by the laws of mechanical action according to universal rules. Philosophical speculation may venture to attack the question what nature and what impulses the rational connection of the universe allows things to have; physical research has only to inquire what modes of activity actually occur, or must be assumed in order to account for things; but it mistakes its task when it strives to be more than an elaboration of the data yielded by the nature of things. Such an encroachment, at once narrow-minded and unwise, was made by the mechanical theorizers of antiquity, when they sought wholly to remove all inherent character, every occult property of their being, from the elements out of which the universe was to be constructed; and to conceive them as merely homogeneous points of junction for action, scattered through space—nay, not even as such, but merely as points capable of receiving an impetus, and so of being set in motion. It is but a short step in the other direction to fill up the internal vacuum of these points, at least with forces of attraction and repulsion, so long as these forces are supposed only to be added to, not to proceed from,

the nature of the elements. Just as physical science as such has little reason to concern itself with the internal states of things, which it cannot observe, we, on the other hand, in forming our ultimate fundamental notions, have to take account of the existence of this inner life, and, instead of denying it, rather to be ready to accept the greatest conceivable variety for it in order that, wherever in future its influences may be distinctly traceable on the succession of phænomena, our modes of conception may be such as to enable us to estimate its worth.

Now in the place that must be left vacant by the mechanical theory let us put our conjecture. If we cannot beforehand determine what reactions any being will develop in contact with others, and consequently what material it will offer for calculation, we can permit ourselves the hypothesis concerning this unknown point, that contact or a series of different conditions acting on an element awaken in it energies that aim not only at self-preservation, but also at the improvement of its internal states. We must not, however, allow ourselves thence to suppose that these efforts of the individual being bestow on it any unlimited power over others. Were that being a soul, and had co-existence with other elements awakened in it the endeavour to procure satisfaction of its cravings by surrounding itself with a regular system of material substances, the soul would notwithstanding thence derive no unlimited moulding power, in obedience to which the organic body might arise. Any internal state of one being will possess radiating force only if the absolute regularity of Nature not merely permits of this, but further causes that the said state shall necessarily be followed by another state of another being; and so here too the environing elements do not, in answer to the soul's wish, combine into an organic form agreeable to it, but merely now and then obey it so far as they are compelled, and as the required form yields the same satisfaction to their own internal states. The stern necessity of mechanism will still, therefore, govern uninterruptedly the formation of things, only it will not exclusively

annex external states to external states, but at each point of its course enter within the elements, and concede to the intelligent workings there in process of development a regularly adjusted influence on the character of the future. There may therefore be particular lucky cases in which a number of elements, originally brought together by accident, all find in one and the same grouping, towards which they in common strive, satisfaction for the new needs awakened within them by their meeting. These fortunate products, in which what is suited to the ends of the individual parts yield together the purposive equipoise of a whole, will be living creatures, and we must suppose that as here their origin, so also the mechanism of their propagation and preservation is pervaded by this inner purposive activity.

The meaning and process of such events become more distinct if we call to mind the destinies and the forms of social grouping which spring from the gathering together of human beings, and by a universal instinct are correctly designated organic formations. Men are not suddenly, by a series of impetuses from without, brought in a moment into satisfactory forms of intercourse, nor do they by an impulse from within directly discover a fitting order of association in which to abide; just as little, lastly, is the organization of society the work of a conscious artistic design, that, working from the first on a plan, and hovering outside of and above individuals, moves them into their right places. Any accidental contact excites in those sharing in it impressions and reactions, which at first seek merely as atoms satisfaction for momentarily arising wishes and needs, and in thus seeking partly derange the external collocation of circumstances, partly themselves receive new feelings from the advantages and disadvantages of this derangement. While frequently antagonistic to one another, these internal motions of individuals give rise to many temporary social arrangements, whose advantage and pressure react afresh on the whole united multitude and on each individual in it, till at last, after many vicissitudes, more permanent forms of social life are established, which meet the

needs of the parts in harmony with the conditions of existence of the whole. In like manner, accidental contact allies minds as to their inner life into a reciprocal action in the course of which, not through the organizing design of any individual, but through the co-operant rational activity of all the elements proceeding from each individual, the purposeless gradually eliminates itself; a position of equilibrium is attained in which the allied minds are at rest, whether from each being satisfied or from the dissatisfaction of some having, through some counter-pressure, lost the power of exciting fresh disturbance. We have to concede to the corporeal elements nothing more than the capacity to be internally affected by circumstances, and from this affection with rational necessity to evolve improving reactions, in order to understand how even from their chaotic mingling excellently devised organic forms come forth, not suddenly and at once completed, but produced by a long and serious process of reciprocal action, just as even now Nature brings forth none of these creatures full grown, but requires of each a long and laborious process of development from its germ. As many of these germs as chaos brought together, so many might there be of partly successful, partly abortive attempts to reach the state of equilibrium. Even final distribution of organized beings into a graduated series of genera and species, manifestly governed throughout by a few general types, does not need for its explanation the hypothesis of an idea everywhere identical by which all have been created, but only the assumption that the elements themselves included no boundless variety, but only a finite number of distinctions—in which case a number of similar characteristics and of comparable forms of acting must go all through their combinations and the developments of the same.

§ 5. Now let us have done with this dialogue between the contending parties. It is clear whither the mechanical view tends. Asserting that it is ever producing order, however unruly and confused may have been the beginnings of the cosmos, it would wean us from the idea of the unity of a com-

prehensive creative will. Now, how is the unity of Nature saved in this pluralism of origin? This objection we not unfrequently find brought forward as the last and weightiest, and yet I know not if it could not easily be met. For there is a unity of Nature that arises in this condemned way, though it no more than arises, and comes about as the final result of the labour of many, not preceding their existence as its controlling source. But is it any the worse for having this history? When in human society moral powers gradually show themselves and grow up, when general views in regard to spheres of duty, accordant acknowledgments as to the services required of each individual by the actual position of his country as grounded in its history, the limits imposed on him by the national code of ethics, and a better insight into the necessary ends of effort and the means adequate to their attainment, gradually come to prevail: are these various forms of civilisation of less value because they did not directly spring forth mature from the unity of a germ of civilisation, but, as fortunate positions of a finally attained equilibrium, were won through a struggle between countless passions and conflicting interests? Now this unity, the result of conciliation, Nature also possesses; in its present condition the wild war of elements no longer goes on; we are surrounded by steady solid deposits of permanent forms, the varied course of phænomena is organized and governed by widespread and unchanging habits of working gradually developed; the sum-total of things either has found the position of harmony between all its parts that admits of no other motion than that of a regular and progressive development, or, if there is still anywhere a lawless war of forces, even its future prospects will appear no less cheering on our view than on that which puts a single plan at the beginning of events.

There is nothing in which we are so apt to err as in our judgment concerning the forms of existence that we deem indispensable to the fulfilment of our most earnest wishes. We have grown used to familiar modes of satisfaction, and mistrust every new situation and every change of things,

while if we courageously made the attempt we would learn that even new relations have sources of enjoyment. Perhaps the conviction of the necessity of a primal unity of Nature is one of these delusions. Perhaps we were wrong when we formerly maintained that our delight in a picture would vanish if it were impossible to believe in the unity of the imagination whose work it is. In fact, when we admire a landscape, we can scarce seriously cling to the illusion that it was *one* breath of Nature which, with the comprehensive unity of poetic phantasy, brought together the manifold and unique constituents of the scene. The cottages and ruins crowning those heights were no part of the plan of the forces of Nature, the seeds of the plants whose varied tints of green enchant us were wafted to this valley by lawless winds knowing naught of each other, and the sun whose rays gild the peaceful scene shines down from a path far above all, and through mists that ascend from other regions of the globe. In this picture there are unquestionably a plurality of origins; its charm lies in the quiet confidence of mutual understanding with which these originally alien constituents are bound together, all sharing the common bliss of a satisfying union.

But one thing seems wholly incompatible with the mechanical theory—the idea of predestination. As long as we looked up to one Cause of the universe, we knew that we formed part of one great universal fabric culminating in a preconceived design; as fellow-labourers on this fabric, we found in the destiny which it imposed on us justification for our existence and guidance for our efforts. A universe formed by the coalescence of innumerable origins has no end and no obligations; whatever it may be it has a right to be, and it imposes neither on itself nor on its several elements the task of pursuing a yet unattained goal. In it facts must throughout prevail and the actual be always right, while all our human feeling is consciously under the obligation to realize a not yet existent ideal. Now, does the mechanical theory cheat us of this idea, and seek by stealth to deprive us

of it? I think that, on the contrary, it is familiar with it in a different form. It is not its part to tell us that by a wise design the feeling of moral obligation and the types of moral ideals have been implanted in living souls, and it therefore does not involve itself in the complexities of the question, how to reconcile with this deliberate setting up of the germ the countless hindrances which the course of things puts in the way of its development. It knows only that even these inner workings form part of the actual nature of souls, and, looking on the moral impulse as one of those forces which the course of things brings into contact and conflict, it does not require that all other circumstances shall accommodate themselves to it, but trusts to its maintaining its place in the reciprocal action of all. Very different from that bizarre Materialism which takes on itself the office of bringing intelligent life out of unintelligent matter as an incidental product whose trifling and precarious value does not permit of its setting up any peculiar claims in presence of matter, the one true substance, the mechanical view can, on the contrary, discern in the fact of a moral impulse one of the most important and original characteristics of the soul, from which all its other regular relationships result as consistent phases of self-preservation. Neither the fact that there are beings who assign a value to themselves and their manifestations, accusing and excusing themselves, nor the absolute authority of the law involved in it, will be called in question or made light of by this view; and if it cannot teach that *above* the individual there soar ideals to fulfil which he is destined, it yet acknowledges that *in* each individual an ideal may be developed from which he cannot without self-condemnation shake himself free.

# CHAPTER III.

## THE UNITY OF NATURE.

Unity of the Basis of Things, and its Results—The System of Material Elements and their Distribution—Preservation of Unity in the Course of Events—Notion of Miracles—Plan of Development in the World and in Man—Cosmic Periods—Limitation of our Knowledge and Being—Universal and Terrestrial Nature—Grades of Natural Products—The Animal Kingdom and its Typical Forms.

§ 1. I DO not think that the lovers of chaos could find other grounds on which to prove the origin of the universe from it, than those supplied by our last speculation. If these were all inadequate to stifle the voice of a contrary conviction, we do not lament this; for our previous reflections pointed out to us another path, from which we once more sought to survey the concentrated force of the mechanical conception of the universe. If our attention has now been given to it for a longer time than to many may have seemed needful, this was because we could not see that its claims are so contemptible as they may appear to the confident advocates of the opposite view. It is like an enemy whose internal organization is too vast and too compact to allow of our succeeding in an attempt simply to annihilate it, we must incorporate it in our own community with the whole disciplined force that it displayed against us, and there open up to its energy a field of useful action. In fact, we would not have dwelt in such detail on the several ideas which we sought to illustrate, did they not, within the other conception which we have to vindicate, retain as subordinate parts a validity which, as an independent theory of the universe, they cannot make good.

When, anticipating the slow course of my examination, I sought, in a preliminary survey, to indicate the direction it would take, I pointed out that every attempt to derive from

formless chaos the necessary appearance of discrimination and order in things, rests on the assumption that a sphere of universal and absolutely authoritative laws unvaryingly prescribes to all elements the form and amount of their reciprocal action (*supra*, p. 364 sq.). This has been confirmed in the course of our last discussions. For though we liberally enlarged the somewhat scanty stock of means of explanation commonly made use of, by allowing that the elements themselves are endowed with internal vitality and mobility; and though we accounted for the reactions exhibited by each element only as the consistent result of its own specific nature, it remained none the less necessary that a universal system of law should unite together all beings, and regulate their mutual communication. For even accepting this account, every reaction must assume that the state of the one element contains a call to the other to change its condition, in order that the latter may be affected by the former. Let it therefore provide for its self-defence according to the dictates of its own genius; the fact that danger could threaten it will be explicable only on the supposition of an all-embracing sphere of law that compulsorily annexes a particular affection in things to every particular situation of them. And in the end, does not the internal consistency of each being in itself likewise presuppose this absolute regularity of demeanour throughout the universe? Further, a free inner development can be called *consistent* only because the connection of its several stages corresponds to an externally applied standard, to a wider necessity, which decides what particular consequent can lawfully be drawn from any particular antecedent. Any course of things admitting some events as possible, excluding others as impossible, requiring some as necessary, even if leaving some to free choice, can judge in regard to these various cases only according to universal laws; and chaos will not develop order until in obedience to this law the frail and tottering combinations of things have been compelled to yield to those which are firmer and self-consistent. If, then, the mechanical theory

starts from a plurality of existent elements, it grasps all the more firmly the unity of the universal system of law, whose power gradually elaborated from the planless disorder of these beginnings the sketch of a plan now permanent.

But we have satisfied ourselves how impossible it is to conceive this sphere of laws as a self-existent power, preceding things and hovering over them; we were irresistibly constrained to apprehend this single bond, as soon as it has to assert its uniting power over the split-up variety of the elements, as one actual infinite Being, of whom all finite things are the intimately cherished parts. Only thus could the reciprocal actions, on which the course of events depends, extend across the chasm that divides the several elements, and would eternally separate them from one another, unless they derived from the common substance from which they spring the capacity for, and the obligation to, a vital mutual relationship, and a reciprocation of their internal states (*supra*, p. 368). If, then, after an examination of the content of Nature, and of the purposiveness of its creations, we could still be in doubt whether, after all, it had not possibly originated in solitary and unconnected beginnings, the fact that there are reciprocal actions will, on the other hand, compel us to believe in a real unity of all things, and a common source whence they have flowed.

§ 2. In now endeavouring to track the consequences of this conviction, we must beware of requiring from it more results than it can yield. The path by which we reached the notion of this Supreme Cause taught us nothing about it, save that it is actual, and one and the same in all things; it disclosed to us nothing of the content of its being, and of the inherent nature with which it fills this mould of unity and infinity. From so unknown a Supreme Cause we cannot venture to deduce the process of the creation of the world, and set it forth in concrete description; just as little can we attempt to determine beforehand the particular order of Nature, in which must necessarily be displayed the creative energy of that principle whose designs and opera-

tions are concealed from us by our ignorance of its peculiar attributes. We can follow out only those consequences which flow from the formal character of unity, and which, in any creation supposed to be derived from a Unity, would recur as necessary features of its organization, independently of the nature of the Supreme Cause. Limited as are these admissible conclusions, they yet go far beyond what our experimental knowledge is as yet in a position to confirm, and we can but indicate them as necessary guiding maxims of our inquiries, not as facts that can be observed.

Whatever may be the process by which plurality arises from unity, it would be contrary to the notion of unity if an accidental indefinite plurality should arise from it. On the contrary, from the first the variety of the elements will form a complete system, that grasped in its totality offers an expression of the whole nature of the One. Not as if this One, like a magnitude, fell into a number of co-ordinate parts, the sum of which must be taken in order to make up the unit again, for the Cause, in the act of creation, would send forth from itself no single finite element, without at the same time adding thereto a fixed number of others, which, taken along with the former, should make the reality its complete manifestation. As a complex chemical compound does not suffer one of its constituents to be withdrawn from it singly, but, on the contrary, also discharges a second, which after the removal of the first would no longer be in equilibrium with the residuum; or, as it does not take in a new constituent, except on condition of simultaneously appropriating another also, by which this increment may be balanced in the constellation of its internal forces: so we have to conceive the sum of reality as a completed formula of which each part supplements the sum of the rest, so as to constitute a full expression of the common ground of all.

This conception we have to apply first of all to the original constituents, which we find woven into the texture of the universe, or must assume as woven into it, to the various ponderable elementary substances of Nature, next to the

imponderable elements (should we with advancing knowledge still be compelled to retain them), and lastly, to intelligent natures, if the various forms of psychic life should not appear to admit of being explained as various levels of development of the same beings

While our experience, almost wholly confined to the earth, is still taking up the chemical elements one by one, the progress of discovery is altering their number, and their conjoint occurrence seems an accidental and arbitrary fact; the existence of each element, on the other hand, involves to us the existence of all the others as a necessary consequence, and all together form a complete system. Each link in this chain, along with its special properties and capabilities of action, has its fixed place, and together with all the others forms a complete expression—neither to be added to nor taken from—of the nature of the Universal Substance.

If, further, the number and distribution of the atoms of each element should to our observation seem subject to no rule, we must, in opposition to this appearance, conceive the total amount of each several element and the dispersion of its parts in space as fixed by a formula that determines for each substance, in view of the peculiarity of its nature, alike the quantity in which it is to appear and the places whence its atoms are to begin their reciprocal action with others. The present condition of Nature, deranged as it has been by innumerable regular developments, and to a small extent by the encroachments of arbitrary lawlessness, does not permit of our working our way backwards to the orderliness of the first moment of the universe; we may believe that such there was, but we cannot accept as the necessary form of that original aspect of things either the conception of an equal distribution of all elements among all, or even that of a somehow symmetrical grouping of the different elements. Just as little does our hypothesis enable us to decide whether the quantity of actual existence is limited or unlimited. Were the attribute of infinity compatible with that of unity, a difference of total amount would be just as conceivable between elements, each

of them made up of an infinite number of atoms, as definite and computable differences of magnitude between plane angles, the arms of which extend *ad infinitum.*

Finally, the world is not in a state of rest; this internal equilibrium must not be present merely for once in the compass of a moment; the unity must be preserved at each moment of the course of evolution. Like every transverse section which we take out of the history of Nature, it must present in the new positions which, in consequence of recent changes, the elements have taken up in it, a new and full expression of the consonance of all the parts to form the whole. We can therefore admit no original motion of the smallest atom not from the first adjusted so as to form a harmonious whole with the motions of all the other atoms; none that had once begun could go on by itself without being invariably turned back from any independent path into the common harmony, by its relations to the other motions along with which it has its place in the fabric of the universe. As in every complete organism the dislocation of one atom alters and disturbs the constitution of the whole, and is tolerated only in so far as the other constituents, by corresponding compensating dislocations, establish a new state of equilibrium, so also may Nature be supposed to possess a susceptibility that prevents it from allowing to any phænomenon an isolated development, unless all the rest of actual existence has neutralized its disturbing influence by counterbalancing changes. But not every part of an organic body is in equally close and important cohesion with the others, so that its transposition must exert a perceptible influence on the states of the whole; in like manner not every event in Nature has so momentous an effect on the significance of its total working as to render necessary the employment of striking or even perceptible adjustments as means of defence against it. Moreover, an unexpected assault may be made on the individual organism from the outside world by which it is surrounded, and its energies thus be roused suddenly to defence; the total of Nature has no environing region in which threatening disturbances may unnoticed gather in

preparation for a sudden attack; its steady and uninterrupted activity counteracts every deviation at its beginning. Although, therefore, we must retain the notion of susceptibility as a necessary characteristic of all manifold reality that rests on the unity of a containing cause, no improbable stamp of unrest and fluctuation is thereby impressed on our picture of the course of Nature.

It would, however, be seriously to misunderstand the nature of this compensation of disturbances either to regard it as merely a maintenance of the order that in the continuous working of any machine is a matter of course, or to suppose that it is a re-establishment of order introduced from above, and wholly foreign to the machinery. If all the actions of elements take place according to universal laws not partial to any one special form of result more than to another, it is neither necessary nor probable that a system of moving parts, corresponding at its commencement to some plan, should throughout the whole uninterrupted course of its continued automatic working adhere to or restore the same plan. In the form which it had assumed in accordance with the mechanical conditions of its working, it might cease to be in conformity with the pattern that it was intended to copy. Now it is possible for the individual creature under such circumstances to perish, *i.e.* renouncing its former character to pass into another form of existence; Nature as a whole can neither stand still nor cease to correspond to the meaning of the One of which all its active elements are but dependent emanations. In it, therefore, must be accomplished the task of a perpetual preservation, not merely of some order, but of the order contained in the meaning of its first creation. Now this cannot be accomplished unless the automatic working by which the first arrangement of the universe is perpetuated, and which is under the exclusive direction of universal laws, is constantly being kept in the path required by that meaning. But we do not conceive this keeping in the path as effected by a higher hand freely interfering with the working of the machine in order to amend mistakes made by it in its blind-

ness, or to avert dangers unnoticed by it. On the contrary, the machine itself notices and averts them. For to us the elements of the actual universe are not dead and rigid, not (as physical science within its more restricted field is entitled to regard them) selfless and void points of attachment for unalterable forces, compelled irrevocably to accept every consequence of their first action without being able to neutralize it by a second, unless this second action should also without any merit of theirs be forced on them by the external course of events. They are to us, on the contrary, living parts of the living One, at every moment not merely *in* myriad relations to one another, but further *affected by* these relations. But this affection is a new fact with which the universal laws that govern every step of the course of Nature necessarily connect a new reaction, which, without the intermediate link of inherent vitality in the acting point, they would never have connected with a merely external relation between it and others. It is thus by no alteration in the universal mechanical laws of working that we conceive the constant preservation of the plan of Nature as effected, but by an alteration in the bearers of the forces that have to obey these laws. As we have never been able to look on efficient force as an external appendage of the elements, but could only hold it to be a necessary manifestation of their being, so too we deny that the same element, however its internal states may vary, must possess an unvarying amount of the same force. If the unity of Nature exists in its essential Cause, and if each element traces in a change of its condition—be it great or be it infinitesimally small—the influence of the momentary total position of the universe, then corresponding to this its altered condition it will assume another form of activity, now become for it necessary from the direction of the course of things. It cannot change universal laws or resist them; it merely alters the specific co-efficients that indicate the amount of its participation in the universal modes of action, and, with these new determinations of amount, returns with entire subjection to the lines of operation prescribed for it by general rules. Thus

an internal connection of things, whose relations are regulated by the standard of a definite plan of the universe, yields to the external connection the facts that the latter develops into their necessary consequences according to universal and planless laws.

I can understand that this mode of thought will come rudely into contact with the current opinion of the internal vacuity of things, and in fact it does contain a notion highly repugnant to that opinion—the notion of Miracles, in so far as that can find a place in a rounded-off and consistent view of Nature. To understand under the term *miracle* only what is unusual, but in its commencement calculable, is evidently to narrow too much the signification of the word; to find in it a complete setting aside of the laws of Nature is to say more than one would care to do. The annulling of a law of Nature, if it were to take place for a moment, would not only make possible the particular single event on behalf of which it was decreed, but at the same time set in confusion all the rest of the world, whose orderly and regular continued existence we presupposed as the foil for the lustre of the single miracle. The authority of the law of Nature must be annulled, or rather another for a moment introduced in its place, only for the one particular case of the reciprocal action between the few elements on which the miracle is performed. It would be difficult to form of this partial annulling of a law of Nature a satisfactory idea that should lead anywhere else than to the thought with which we started. The miracle-working power, whatever it may be, does not directly turn against the law to set aside its authority, but by altering the inner states of things, in virtue of its internal connection with them, it indirectly modifies the usual result of the law, whose validity it leaves intact and permanently turns to account. The complete and unbending circle of mechanical necessity is not, and must not be, immediately accessible to the miracle-working command; but the inner nature of that which is subject to its laws is determined not by it, but only by the meaning of the universe. Here is the exposed part on which

a power, ordaining in accordance with that meaning, can exert its influence; and if, in consequence of its ordinance, the internal states of the elements, and the amount of their mutual affinity and antagonism, undergo a change, the necessity of the mechanical course of the universe will have to produce from the altered state of the facts an external, miraculous phænomenon, not by setting aside, but by strictly maintaining universal laws.

It cannot be within the compass of our present inquiry to decide the question whether we may treat this possibility as actual, and what power we may suppose entitled to interrupt the course of natural phænomena by particular unusual miracle-working interferences. Here we should rather trench on the discussion of that permanent order by which the unity of the infinite Cause of the universe is manifested in the multiplicity of phænomena. To this end we have still a consideration to present, a final result of that unity, yet even to ourselves not of the same importance, or, at any rate, not of the same nature as those which have preceded it.

We may doubt whether the unremitting adjustment that brings the course of Nature always back into the same order, is adequate to defend at all points the unity of the Supreme Cause. If at each moment this creative Cause could stamp in ever new forms the impress of its unity on a universe at war with itself, as it were, through the motions of the several elements, it would indeed vindicate its unity, but the inducements to vindicate it would come from without; the whole series of its triumphant self-assertions would form an unconnected plurality with no principle of unity. Man, when he reviews the history of his life, finds in it innumerable external accidents, with no connection between them, and still more conspicuously alien from his own being; even if, in the struggle with them, he has guarded the individuality of his nature, he yet feels the course of destiny as a foreign constraint that forced on him particular forms of this self-preservation. He would be still more oppressed by this feeling, if he had to acknowledge the most favourable result of every

struggle with this destiny to be nothing but bare self-preservation, nothing but a return to a former condition; for the unrest produced by continual rousing through external interferences and ever relapsing into the old state of rest, would seem quite absurd and aimless. But we know that, after all, these accidental stimulations have been beneficial, they called forth energies that lasted after the victory had been won, and substituted a more perfect for a less perfect condition. The soul in its self-consciousness, by using every position gained as the starting-point of a new and higher development, has *made* itself one in a yet higher sense than that in which it previously *was* one, and has linked together the unconnected multitude of its accidentally caused acts of self-preservation into the chain of a progressive development. In this it would have been more successful if external stimulations had always reached it in due proportion to its need of development; but at any rate it has thus overcome the utter fragmentariness of its inner being, which would have been little in accordance with its original character of unity. Motives to self-preservation do not come to the total of Nature from without as to the individual soul; it gives rise itself to the original movements which, as continued, yield it an opportunity for an ever-renewed working of its unity. It would the less truly display this unity, in proportion as the sequence of these opportunities remained an arbitrary accident, not itself dependent on the meaning of the unity that seeks to assert itself in it. The series of cosmic periods cannot, therefore, be a number of phases, in each of which the one purpose of the universe does in fact maintain itself; it must rather be a chain, each link of which is bound together with every other in the unity of one plan. The One can manifest itself in various forms only when such variety of forms is necessary for the expression of its meaning—in a definite order of succession only when this order corresponds to a craving for development in its nature. As we previously required that each section of the world's history should present a harmony of the elements firmly knit throughout, so must we now require

that the successive order of these sections shall compose the unity of an onward advancing melody.

We might have said more simply, that the course of the universe must form not merely a plurality of successive moments, but a connected history; but then we must, at the same time, have indicated the reason for this assertion. Experience would supply but equivocal evidence of a progressive development of the universe as a whole; to choose it in preference to another hypothesis as the image of a fairer existence would be still less satisfactory; to prove its necessity from the living content of the Cause of the universe would overtax our means of knowledge. Let us therefore be content to know that existence without motion is not contrary to the notion of the One, but that, when we have before us the fact of its motion, then this must of necessity assume the form of a connected development. And to each stage of this development we must anew apply the requirements of the original unity. The nature of existing substances, their quantities and their distribution in space, the variety and graduated order of organic species, the proportions in which the shaping-power divides the substances among the different living forms in which they are for a time to remain combined, the direction and velocity of the circuit ceaselessly travelled by the elements in their passage from one form to another: this whole sum of existence and action corresponds at every moment to a comprehensive adjustment of conditions that sums up the requirements of the One in all the manifold phases of its manifestation. There may be protracted periods during which the frame of the universe, unaltered in its main outlines and in the nature of its elements, goes through a long course of internal movements, by which it gradually realizes all the potentialities of manifold development conceivable within the limits of that fundamental adjustment. But after these have been gone through, the One, which did not in a thousand moments appear a thousand times, but brought together the thousand forms of its existence into the unity of a single development, in which each stage is a condition of the

next—the One, we repeat, thus quickened and in the full tide of advance, will not go back to its former beginning. This age of the world will be brought to a close, and the velocity and direction of the formative motion with which the cause of the universe reaches that termination, will compel it to give in a fresh creation a remodelled form to the immutable, but by dint of constant development deepened and ennobled, meaning of its being. A new adjustment of conditions will hold good in this age. Other substances, newly distributed functions, forces, and affinities, another kingdom of generic forms, and hitherto unknown types of life under new external conditions of existence, will repeat the imperishable theme as in a characteristically connected variation.

§ 3. Here we pause. We have gone so far beyond the sphere of experience that we must make up by a return to its modest domain. It is true that these last considerations have suddenly made the apparently so solid fabric of the mechanical science of Nature fade into a much paler radiance; but in truth we can cherish no higher opinion of this sum of our exact knowledge than that which here results. All our knowledge of the unchanging laws of Nature, and all the research into Nature made under their guidance, is but as the application of a circle of curvature at one point of a curve produced *ad infinitum*. We rightly maintain that the direction in which the course of things works at this point, namely, in the thousands of years of our historical remembrance, is exactly measured by the curvature of that circle; and doubtless it must appear to us as if even beyond this point, in the two directions of the past and the future, the course of things will remain unchanged for an indefinite period. But to more than this assurance we cannot attain. So long as our object is to investigate and determine what surrounds us during the short span of our existence, we do well to shun the distracting effect of an outlook into the endless distance of the ages of the world; for what may be contained in them has unquestionably no immediate influence on that precious span of time within which lies what must be our prime concern—the

conditions and ends of our action. To be always trying to reach the deepest mysteries, when the ends of investigation require us to keep steadily within the limited range of given facts, would only be to clog science with a sense of romance. When, on the other hand, we are conscious of a longing for a wide survey, for some certainty as to hopes and anticipations that stretch into the infinite, then we must remember that here the romantic may easily prove to be true, and that reality on a large scale is poetry, prose nothing but the arbitrary and confined view of things afforded by a low and narrow point of observation. Along with the extent of survey sought, the small standard of our measurement must increase, and we must take home to ourselves the conviction that this known world, with the apparent indestructibility of its forces and its fabric, is to us indeed a boundless ocean of permanence, in which our existence is lost, like a single drop, but is after all in itself only a fleeting expression of an infinitely deeper meaning. Absolute and perpetual validity belongs only to this meaning of the universe and to those most general laws, as yet referred to no definite actual object, without whose sway no conceivable actual frame of things would present consistency of any kind; all the derived laws arising from the application of these supreme canons to the nature of the created are, on the contrary, variable by their very notion. They will pass away with this creation, but so long as this creation abides they will assuredly form the incontrovertible and safe means of attaining to a knowledge of it.

§ 4. Let us, then, look on these speculations as an ornamental frame to the picture of Nature presented by the present actual world, whose peculiar living lines we have henceforth not to deduce from the barren notion of the unity of the Supreme Cause of the world, but to derive either from a knowledge of what that Cause is, or from experience. It is not our intention to enter here on the first of these paths; we are not encouraged to do so by the result of the attempts of others. We have already remarked how little we can,

from what we may justly look on as the true and absolute content of the Supreme Cause, argue the indispensableness of the particular natural forms by which we are surrounded. This has, in fact, never properly been attempted; on the contrary, while, on the one hand, thinkers have, from an Idea supposed to reign over the world, unfolded in large but as yet vague outline the main tasks which it devolves on the actual world somehow to accomplish, on the other, they have betaken themselves to experience, and tried to ascertain which among observable phænomena may veritably be regarded as an accomplishment of those tasks, as an embodiment of the faint outline of the Idea From this half and half procedure has arisen the view of Nature at present much in vogue, that there is a constantly creative Unconditioned, whose striving after expansion, directed towards the greatest possible development and improvement of intelligent life, takes shape in a graduated series of forms approximating more and more towards perfection. Not to speak of the realm of lifeless matter, which on this view forms the containing frame of coming life, and of vegetable existence, which forms the immediate anticipatory prologue of it, the animal kingdom most clearly exhibits the gradual advance from merely acting existence to the consciousness of acting, from blind execution to the reflective freedom of purposive action, nor this only in the fashion of the life, but also in the growing significance and beauty of the bodily type. At the end of this series we meet with man's form instinct with soul, the most complete and harmonious blending of particular characteristic features already presented by the lower races, though in less happy combinations.

Before following out this thought, and with it as a clue seeking to assign to man the place that rightfully is his in this realm of Nature, we would fain attend to some objections that may be brought against the general tone of this view.

Let us suppose that philosophic speculation has first of all, in a general science of Metaphysics, explored the depths of the Supreme Cause of the universe, and thought out the

hitherto formless thoughts that thronged through the divine phantasy before the world was, and let us further suppose that with these results of its reflections it applies itself to the study of Nature, in order to find in it the embodiment of those creative Ideas; in doing this we must, above all, remember the nature of the all-embracing Cause may perhaps be divined from the smallest part which it embraces, while of the great world of phænomena only a small section is open to us to know. In the force of gravitation and the motions of light no doubt our observation of Nature finds objects that bring all parts of the world into mutual connection; but in the sphere of life and its orders we have but a limited example of the development of the Supreme, of the forms assumed by the tasks which it undertakes on the surface of this one planet and within the space of time embraced by our observation. We must here leave it wholly undetermined what forms of life—doubtless different from those of the earth—may occupy the other worlds of the universe; but if we renounce the vain attempt to form imaginative pictures of a type of existence having to fulfil the general functions of life under totally different external conditions, we must at least keep hold of the thought that a boundless expanse of such different existence spreads around us, and that the whole organic Nature with which we are acquainted is but one of countless forms in which the creative Ideas of the Supreme Cause are manifested and embodied. To the unsophisticated human mind this thought is familiar enough; it is only philosophically developed science that professes to believe that the creative Cause of the universe issued from its darkness into the light of manifestation only by the narrow path of earthly Nature, and, after having formed man and human life, again retreated into its native infinity, as if with all its ends accomplished. For this dialectical idyll we must substitute an outlook into the boundlessness of other worlds, not with the vain effort to know the unknowable, but with the view of letting the boundlessness of this background mark out for the realm of existence knowable by us its own narrow limits.

§ 5. If we now confine ourselves to this terrestrial Nature, how are we to interpret the ascending scale of its products? If a progressive effort at development, directed towards the highest evolution of intelligent life, produced the lower animals merely as transitional stages, why do they continue to exist? Why are they not thrown away like a piece of prentice-work, from which the fully accomplished craftsman subsequently turns away with indifference? We shall perhaps be told in reply, that the lower and the rudimentary must subsist alongside of the higher, because only in such a simultaneous assemblage of all stages passed through does the creative intelligence find a full and faithful reflection of its whole being in the world of phænomena. But the same requirement would hold good also of the periods of history, and yet the different ages do not coexist, but the civilisation of the earlier remains just long enough to be embodied by means of an imperfect transference in the stock of culture of the later. So perhaps we are altogether in error in this supposition; perhaps the lower organisms are not mere trial specimens, mere incidental products thrown off by the creative intelligence on its rapid advance towards the highest stage, man, but have each their own irreplaceable significance. There were as many inducements to the creative intelligence to form beings as there were different positions of things, peculiar combinations of circumstances, and special seats of habitation and activity upon the earth's surface, with its mountains and valleys, with its atmosphere, its fluid and solid beings, of which each one should, by its peculiar organization, be rendered capable of accommodating itself to one of these situations, of adjusting itself to it as the horizon of its life, of entering into all the stimuli to sensation and individual activity afforded by it, and of turning all this to account in a perfectly characteristic existence of enjoyment and fancy. The aim of the organizing Idea would then be to give shape to a variety of types of life, such as should leave no element unenjoyed and unused; and no one of these types would be capable of taking the place of any other, for a narrow range of view yields a

different and more intense satisfaction to the creature whose all it is, than to one of higher constitution, whose attention is but transitorily attracted to it.

Thus we find at first sight no occasion to assume in the scale of being anything else than an infinite variety of constitutions, each appropriately organized for the scene and the tasks of its life. But observation so distinctly shows us a small number of types of outward form adhered to steadily throughout, that scientific imagination could not help seeking a cause for this uniformity. It was believed such would easily be found; for, however different might be the individual ends pursued by Nature in her individual creations, it yet seemed that Nature working as One must in all the motley variety of her production adhere to a uniform type of procedure, and keep to it while bringing forth her most varied forms. An attempt might then be made to specify the thought on the expression of which in this uniform procedure Nature sets so high a value as to make all differences in her creations but variations of this theme. Experience, indeed, showed that it was going too far to speak of Nature having carried a single type through the whole series of the animal kingdom. Unquestionably different, though not indeed numerous, fundamental types result from a comparison of the different classes. But this only added to the interest of the attempt here to be made; the object now was to interpret even the plainly different types of life as different outward expressions, each surpassing the other in value, of the essential, fundamental Idea. But results, it appears to me, yielded scanty justification of the excusable boldness of the undertaking.

Examination of the main outlines of animal forms showed that one radiates symmetrically from a centre, that another shows an axis from the sides of which grow limbs either equally in all directions, or differing but corresponding on opposite sides, and that again others present these relations multiplied, the extremities of the axis being developed into poles of varying form and meaning. For a long time these purely

formal relations served for edification and for the foundation of a belief that in the contrast of the general notions of centre and periphery, parallelism and polarity, unity and repeated division, were contained the mystically significant types which it was the aim of shaping Nature to stamp ever afresh on organic forms. But soon we shall have to acknowledge that these notions have too little deep meaning to allow us to look on the embodiment of them as a work for shaping Nature; on the contrary, they are relations so general and almost universal, that a force about to produce a composite form could not help quite unintentionally adopting one of these types. For, in fact, if Nature would not form a perfectly uniform sphere, but marked out a single point by a special function and form, how could she prevent there seeming to be contained in the resulting figure the thought of a relation between centre and periphery? And, if she started from the globular form, into what could she have expanded her forms without the assertion being plausible, that she had intended either a parallel or a radiatory arrangement, a division by one axis or by several axes? And again, if she made the extremities of an axis different, must she not have seemed to be thinking of polarity—as, if she formed any limited whole, must she not have apparently aimed at an exhibition of the truth, that everything within finite limits has a beginning, a middle, and an end?

By these remarks I in no wise mean to dispute the significance of the proportions of form often so tenaciously adhered to by Nature; I merely deny that the production of these purely geometrical forms was the ideal which Nature sought to realize. It must be borne in mind that organisms exhibit these forms not *in a mere general way*, but through vitally active parts, and that unquestionably the external form in which these parts are combined receives its value by reflection from their meaning and use, and the important effects they produce on the life of the animal. To exhibit polarity for its own sake is no rational principle on which to construct a form; on the other hand, to place in external

contrast two parts whose function with respect to the whole essentially involves contrast, would well beseem a Nature intent throughout on expressive beauty in its organisms. Let us therefore no longer seek the archetype of living shapes in such spatial forms empty in themselves, but rather seek in the content of that which has to take shape in space the cause of the prevalence of typical habits of formation.

Life on the surface of the globe is confined to certain substances; the bodies of all animals and plants are framed from the carbonic acid and the nitrogen of the atmosphere, and from a few soluble salts of the soil. But even the combinations of these elements forming the immediate constituents of the structure of organic bodies are surprisingly uniform throughout the realm of life; everywhere cellulose, chitin, and albumen occur almost exclusively as the materials of tissue. Perhaps under the conditions given on the surface of our planet, among all possible conbinations of those elements only these few possessed all the requisite properties for serving as the constituents of variable, susceptible, living forms; but, be that as it may, the fact remains of this uniformity in the *chemical type* of composition, as far as living beings are concerned, and must have had the most momentous effects on their further development. For, first of all, this chemical nature of the constituents of bodies, the necessity for all animals to draw repair for waste and the means of growth from analogous sources, and to bring them by like processes of chemical elaboration to similar states of composition—further, the variability of the completed tissues, which on account of their uniform chemical formation are everywhere also disposed to analogous decomposition — finally, many other hence derived similar needs must determine in all animals an essentially harmonious number of processes and of corresponding organs. Thus from the *chemical* springs a second, the *economic*, type of the animal kingdom maintained with extraordinary uniformity throughout its more highly developed orders. Everywhere here we meet, besides the proper digestive organs, special channels of

respiration, of the formation of gall and urine, of the circulation of fluids, and only in the lowest orders of animals, the minuteness of whose bodies it is chiefly that makes this division of labour among a variety of organs less requisite, do we find this complicated formation replaced by a simpler one. Now with this varied machinery — which does not even serve the proper ends of life, but only that of bringing together means by which they can be attained—is the animal organism weighted; what it primarily needs and seeks to form, the instruments of sense-perception and locomotion, it has to arrange and build up round this inevitable nucleus of internal structure; and it must be careful to combine the maximum and specific utility of these instruments with the imperative requirements of that durable internal structure. Now there may, on the whole, be many types of form that fulfil these requirements; namely, when Nature can meet the peculiar total craving of any particular species by a new and independent mode of formation and new materials selected for it. But it is compelled to make every animal body out of substances differing in their chemical composition not incommensurably, but only moderately. Now as in each substance its chemical nature determines the type of its future form, the number of possible shapes allowed by the uniformity of the chemical type of the animal kingdom cannot be unlimited. On the contrary, the combination of all the conditions here referred to yields the result, that only a limited number of types are left to serve as permanent patterns, and that every peculiarity of formation required in any species by the end of its existence is realized not directly, but by transforming or giving a special stamp to some part of the form already contained in the general type as a serviceable potentiality. Thus the *morphological type* of an order of animals is the last to appear; not as the ideal form held up from the first to be realized for the sake of its own significance, but as the only remaining mechanically possible mode of configuration, in which alone, under the conditions obtaining on the earth's surface, a great variety of types of life is compatible with

the exceedingly limited and uniform choice of means at disposal for its establishment.

With these remarks we return to our last starting-point. The phænomenal world which we can observe, with all the peculiarity of its types, could not, it appeared to us, be immediately derived from the strivings after development of the Supreme Cause of the universe; we took it to be but one specimen along with others, and sought for the cause of the unique manner in which it (different in this from other orders of things that we conjure up only in fancy) after its own fashion embodies the universal ideas of that Cause. This cause we find in the character of terrestrial Nature. It is the unique character of this planet that is revealed in its living forms; its selection of substances, its relations of heat, its atmosphere, all in its physical and meteorological conditions that distinguishes it from other heavenly bodies, all meets us here as a series of obstacles and helps, generally speaking of form-determining conditions, and in great part gives rise to the peculiar relations between its creatures, which we look on wrongly as an immediate consequence of the highest Ideas, rightly as only the form in which the commands of these Ideas can be carried out on earth.

# CHAPTER IV.

## MAN AND BRUTE.

The Grades of Animals and their Significance—Structure and Life—Bodily Size—Bodily Strength—Length of Life—Requirements as to Food—Capacities of Acclimatization—Erect Form—Its Causes and Results—Symbolism and Beauty of Form.

§ 1. WE were led into our last discussion by our purpose to fix the true place of man in the scale of living beings. Its course, however, seems to have dissolved the very aim which we set out to pursue; a free variety of forms has taken the place of a connected scale in which every being found its position low or high, each called only to its own enjoyment and determined in its type by respect to the general terrestrial economy, none being found to adapt itself to any order of succession, and to allow the amount of its worth and importance to be measured by its place therein. In fact, we stop short at this point, and wholly deny that the establishment of this scale is in and by itself an end of Nature, or that it is possible from the position in it belonging to each several creature to understand its peculiar nature better and more thoroughly than through an unbiassed and direct examination of its outward appearance, the form and capabilities of its body, and all the details of its situation and particular manner of life. In regard to man himself we shall arrive at no other conclusion, and, while even to us it was of interest to throw light on his place in Nature, we seek the significance of that position not in the round of the ladder on which he stands, but in the peculiar character and the advantages and disadvantages of the environment with which his organism is designed to enter into relations of reciprocal action.

Here, too, we are at variance with a widespread habit of

thought. The philosophic tendency to derive the necessity of the several living beings from the content of the thought of the Supreme Cause, of which in its totality they are supposed to serve as a manifestation and counterpart, has led to a decided preference for the world of forms over that of events. It seemed that full insight into Nature would be gained, if only it should prove possible to arrange in a series the fixed types of its various creatures; little importance was attached to the life itself developed in each several member of the series. And yet assuredly Nature is no such motionless passively ordered system of typical forms; it is rather an infinite, living, noisy tumult, in which numberless specimens of these forms enjoy their existence, help and hinder one another, sport and struggle together, destroy each other, and in all this display an endless, charming variety of characteristic traits and moods. While the natural history of former times was never weary of noting all the minute touches of this fairy-like brilliant picture, the speculative tendency to assign to all creatures that place which they occupy in the development of the Infinite has taken away from the vividness of this remembrance of this only true life of Nature. In these efforts at systematization we see indeed the couples in their places for the dance, but we never get to the dance itself; they seem to have done all that is incumbent on them when they stand arranged in solemn stillness.

If there is any philosophic prejudice that we would fain see slain, it is unquestionably this misapprehension of the true place in which the worth of things is to be sought, this idolatry of lifeless forms, of universal ideals, of significant types, this perpetual occupation with the means prepared for vital use, without ever getting beyond resultless trifling to the real resolute using of them. Nor is it only in the sphere of natural conceptions that this tendency spoils our enjoyment of the great picture set up before us; its injurious effects are apparent also in the treatment of historical facts. Vainly for any ingenuous mind does it cover itself with the disguise of profound thoroughness; the oft-repeated assertion that it is

impossible to know man perfectly without having examined all the lower members of the animal series, at the head of which it is his proper attribute to stand, is but a caricature of profundity. What pedantry, to suppose that he alone understands man who has first learned to understand the infusorium, the insect, the frog! What audacity to say this in the presence of thousands of years of human history, during whose long course all the significance of human life has doubtless been felt over and over again in the most passionate conflict! And yet the heroes who marched to battle were not aware of their being the captains of the mammals; and the deep thinkers whose discoveries opened up new paths of progress, were not led thereto by reflections on the width of the interval that in the animal series separates man from any reptile. Knowledge of man means above all knowledge of his destiny, of the means given him wherewith to fulfil it, and of the hindrances which he has to encounter, if beyond this there is a certain interest in comparing him and his life with the creatures that around him go their own ways, this is an inquiry of too trifling value and influence to be made the foundation of the other and more important one.

§ 2. After all this, it cannot be our intention to enter on the consideration of what man essentially is by the long circuit of a biological review of the animal series; we shall devote but a few words to his relation to it, and that in a sense different from the ordinary one. For although we cannot look on the establishment of a graduated animal series as the design of Nature, yet the variety of the actual forms, whether we take account of the greater or less complexity of their shape and articulation, or the dignity and scope of their destiny, cannot but be differently estimated. Unsought and unthought of, in this comparison the image of an ascending scale will recur, or perhaps the images of different orders; for it will depend on the standard which we apply, on the interest which we bring to the comparison, whether the same animals appear with one or another measure of perfection. Physiologists, who delight in observing the harmonious

symphony of a number of different interacting functions, and morphologists, whose desire it must be to ascertain the full extent of the pliability and variability of a simple form-type, will consider an animal to be the more perfect the greater is the manifoldness of its co-operating parts, the more distinctly the several functions are distributed among special organs, further, the more complexly and the more diversely developed the outlines of form of a general type appear in it. To those, on the other hand, who measure the value of the animal only by the sum of enjoyment within its reach and the amount of work it can perform, this variety and complexity will in themselves be without interest; they would esteem the simplest, most compendious and most homogeneous formation, if only its apparently inadequate means sufficed for the attainment of those ends, as the more perfect, and would mainly agree with those who hold the other views already referred to only because they assume that a larger supply of organic means, means also higher ends in life.

We find this assumption confirmed when we weigh the advantages of the type of organization shared by man with the vertebrate animals, from whose highest class, the mammals, he is divided by no more decided difference than occurs between their various genera. Out of soft masses, whose outline is supported by neither an external nor an internal solid framework, Nature could form only animals that were to live either in the element of water, everywhere yielding and everywhere equally pressing and supporting, or on land under unvarying external conditions, with capacities for neither very energetic nor very varied movements. So at least we fancy we can guess the possibilities at the disposal of Nature from indications whose scant degree of certainty we must allow. For it is easy, indeed, to understand the advantages of arrangements which we see before us in the structure of animals, but we have no warrant that the inventive power of Nature could not have realized wondrous living forms which our imagination never would have devised, even by means of much more limited utility in our eyes. Hence we can only regard it as

a fact not improbably connected with the structure being without a skeleton, that on land none of these animals attain any considerable size; only in the ocean do we find apparently as unprotected forms developed to larger dimensions, mainly because here with a comparatively small body they exercise control over a considerable extent of the fluid element by means of numerous widely extending limbs capable of the most varied changes of form, and in consequence of the tenacity of their contractile substance are able to exercise no small amount of activity.

An external horny or calcareous case has given to other orders of animals a firmly-fixed bodily form. But the kingdom of the insects and of kindred groups formed on the same type presents in contrast to the vertebrates but a miniature world, bodies partly of exceeding minuteness, in which nevertheless a remarkably lively psychic life goes on. For it is chiefly in these orders that animal instinct rises to that admirable perfection which not only makes use of the matter of the outer world directly for the preservation of life, but with provident wisdom applies it also to future needs. Now the mechanical possibilities of an external skeleton of large dimensions would not have been compatible with such intense activity of psychic life. Such a coat could only serve as a defence either against petty impressions acting slowly and with little force, or for small bodies whose fall would be sufficiently broken by atmospheric resistance, and whose mass is not of sufficient weight to push with great force against their containing case, on occasion of sudden obstructions of motion. As soon as the outer skeleton exceeded modest dimensions, the requisite solidity of its parts among themselves, the formation of larger rigid pieces which is inseparable from that solidity and the weight of these masses, could not but be in perpetual conflict with the ease and nimbleness of the intended movements; these disadvantages being actually found even among the vertebrata, in turtles and crocodiles, so soon as these encased monsters leave the watery element. On the other hand, the plan of an internal skeleton presents great advantages. A

firm axis going through the interior of a soft body contains along with an equal guarantee for continuity of form much less bulk than a shell covering the surface; further, when this axis is divided into separate parts jointed together, the contiguous surfaces of each joint present a much smaller extent than would be contained in the long line of hinge running between two plates of the external skeleton, which would be required in order to render a movement of equal range practicable. It is easy to see what a saving in weight and resistance is here effected on behalf of the motive force

This, then, is the first advantage won by the vertebrate animals, and along with them by man, from this general type—the possibility of a body of considerable bulk. It would be a mistake to think little of this, and to look on the standard of absolute size of any creature as a matter of indifference. Human culture is impossible without a certain amount of physical capability, and a lower degree of bodily strength would result not in a daintier miniature repetition of human life, but in no human life whatever. No doubt many insects can carry greater weights than we in proportion to their size; no doubt we perform still more by the ingenious use of machinery than by our own bodily strength; still the latter must be sufficient for the manipulation of instruments such as can usefully act on the objects of our environment. We must have, then, the amount of strength requisite to construct machines, and having constructed to make use of them, and it is undoubtedly a fixed quantity, not admitting of arbitrary diminution. However marvellous a labourer in the soil the ant may be, it never can carry on agriculture and mining operations. The roots of plants reach down to a certain absolute depth, the ground must therefore be turned up to this depth; this presupposes that masses of earth of a certain size can be raised to a certain height in a certain time—an operation that can be performed only by the use of solid and strong tools, consequently only through the possession of strength such as can shape or handle stone or iron. But the cohesion of metals is a fixed quantity, and the smaller

pieces on which the ant would try its strength are not inferior in solidity to the larger, so as to bring their separation and elaboration within the reach of a less degree of strength. All industry and manufacture in the end depend on this stock-capital of a certain amount of bodily strength, and a pigmy people, however many-sided might be its activity, would never attain to that height of human civilisation which is derived from the power of moving masses easily, and which thence has been able to rise to the survey of the whole extent of the earth, to the indirect overcoming, not of every amount, but of nearly every kind of difficulty, finally, to the utilization according to pleasure of almost all kinds of matter, however apparently inaccessible.

To this we have to add a second and not less noteworthy advantage. The limited duration of life not only in skeleton-less, but in all invertebrate animals is a fact of experience, which is not fully accounted for on physiological grounds; at the same time the short span of their existence is frequently occupied with a remarkable variety of metamorphoses in their shape and mode of life. Both characteristics seem to be closely connected with the small size of the body; its power of counteracting external influences and the mutability of its own internal relations may be small, and it may be hardly capable of resisting dissolution in a state of rest, but only for a time while undergoing perpetual transformation. At the same time these two circumstances are not favourable to the development of intelligence; they keep the whole animal life confined within one cycle or a few great cycles of Nature, and thereby necessarily hinder the improvement that might come from reflection on oft-repeated experience; the year as it passes through all phases of life is not repeated in miniature on behalf of the small animals, only those which live long have experience of the regular recurrence of the spectacles of Nature. But further, the rapid development, the quick growth and decay, the frequency of metamorphoses, all this inner restlessness cannot allow to the psychic life that continuous conscious reflective development made possible for the long-

lived vertebrate animal by the slowly and regularly advancing process of his growth, the limited variety of his external impressions, and the comparative similarity of his vital experiences.

At first sight man seems in none of these respects to stand at the head of the animal series; he is surpassed in bodily size and strength by many of his usual companions, the domestic animals, in longevity by the monsters of the mammal family, and by many beings of a lower order, in agility by his parody, the ape. But closer examination shows the superior excellence of his organization No doubt there is a limit beyond which the advantages of increasing bodily bulk turn into disadvantages for high development, and are no longer compatible with the favourable conditions naturally secured to life by the vertebrate type. Were the bony framework of a mammal enlarged equally in all its dimensions, the weight of the bones would increase along with both their length and their thickness, but the power of the likewise magnified muscles by which they are to be moved, would not increase with their length but only with their thickness, for this depends solely on the greater number of efficient fibres lying together in the transverse section of a muscle. In order to adjust this disproportion between weight and force, the muscles would have to be made thicker in proportion than the bones, and one can see how this at once gives the image of a bulkier figure, in which the spaces between the bony framework are filled up with larger masses of flesh, or—as a compensation in the opposite way, by diminution of unfavourable lever-relations—the prolongations of the bones are lessened as much as possible. These compact bodily forms can no doubt wield great force, but only in a comparatively useless fashion; for their want of mobility, or the single direction in which their movements are freely performed, prevents them from applying their operative power at a number of points of attack in quick succession, and thereby turning it to good account. We marvel at the huge strength of the hippopotamus and the elephant, but in fact it is fitted rather for

destruction than for labour, and we would find it difficult to prove the corresponding advantages procured for the animals themselves in the natural circumstances of their life by this not readily applied capital. It is not his stupendous bulk, but the movable proboscis with which he is endowed, that makes the elephant capable of the operations in which he shows himself more sagacious, more educable, and more powerful than the other monsters. So, then, versatile lively mobility without great strength is the endowment of the smaller animals, preponderant strength without corresponding agility, or applicable only to certain kinds of movement, that of their colossal brethren; between the two extremes man perhaps stands in a central position that, because it unites both in an equipoise of far-reaching utility, may be held to be the true crown of the animal series.

It is more doubtful whether we can say the same of the length of life. We think ourselves justified in pitying the ephemeral races, whose short lifetime allows them to see but a small section of the life of Nature; on the other hand, we would not wish life to be prolonged more than is necessary for it to taste in succession the sum of experiences from which it can draw enjoyment, and to condense the thence extracted pleasure into a durable, unfluctuating temper. With this opinion we may be disposed to think that the longer span of life of some animals is no gain to them. After they have come to maturity their organization contains no further means of bringing them from year to year into new and interesting situations, fitted to enhance the value and beauty of their inner life; each revolving year brings with it uniformly the same observations. In this respect also, then, perhaps the lot of man is the happiest. On the one hand, we cannot stifle a feeling of regret that, while our experiences are ever inviting us to endless progress, life is too short to let us exhaust this fulness; but, on the other, the feeling forces itself on us, that, along with this ever fresh variety of individual life, the great experiences that excite in us the profoundest interest are no less exhaustible than the great

and wide truths that seem to be accessible to us. We tacitly acknowledge that the essential goods of this earthly existence lie very well within the natural limits of our lifetime, and that were it considerably prolonged, the effect would be no increase, but a gradual diminution of our happiness. If, then, human life even under the most favourable circumstances hardly ever extends through the whole of a second century, and if it usually attains scarcely the half of this period, yet the total effect of all the advantages contained in our organization produces within these narrow limits a many-sided development and a variety of inner life such as falls to the lot of no race of mortals save that of man, who here, too, forms the true head of the line. He survives several generations of his most intimate companions, the domestic animals, and sees the grandchildren of those which were the contemporaries and playmates of his childhood; those animals, on the other hand, which survive himself and his generations, exist for the most part outside his immediate sphere of knowledge; he hears of them, but has not before his eyes a longevity that would more forcibly bring home to him his own transitoriness; thus he feels himself in the happy medium. Only in other zones it may cause a peculiar feeling to see around one perhaps elephants that were fed by one's fathers and will be fed by one's grandchildren, comrades of preceding generations still living on with future ones, while in *our* native seats these far-reaching joyous or pensive dreams of memory and hope are associated only with the silent forms of venerable trees.

Moreover, we are very imperfectly acquainted with the mechanical causes that determine the duration of life. Within the same type of organization the size of the body has undoubtedly a protracting influence, but an equally powerful influence is exercised by the life-plan of each species, the total tendency of which we know not immediately, but only in the characteristic stamp of its bodily form. Great and restless mobility wears away the organic mass, and the swiftfooted races of the animals of the chase, dogs, and even

apes, are inferior in length of life to mankind and even to the greater beasts of prey which satisfy their cravings by particular vigorous exertions, without indulging in an excessive love of motion. In like manner the swift, vigorous, but yet quiet flight of the eagle involves comparatively less exertion than the ceaseless unrest of flying backwards and forwards that wears out the light bodies of smaller birds On the other hand, the lethargic character of the amphibious animals affords to even the smaller among them a greater tenacity of life, and Nature seems to have further helped in this direction by giving cold blood to some creatures of this class. For all animals whose life is to flow on in a uniform current of activity not interrupted by periods of sluggishness or of hybernation, it is an indispensable necessity that they should not be dependent on an even temperature, although this independence is a source of many internal disturbances. Among these various possibilities the organization of man presents the most advantageous; a combination of strength with many-sided mobility ever ready, ever wakeful, but never degenerating into aimless restlessness, that never performs anything amazing at any one time, but within the span of life has time enough to blend its several achievements into an important whole.

Now, as in these other respects, so also as to the outside necessities of life, Nature has placed man in a more favourable situation than the other animals. It is well known how closely a great part of the lowest animal orders are attached as parasites to an exceedingly confined scene of life which alone offers suitable sustenance and the other necessary conditions. The vertebrata are all set free from this coarsest of bonds chaining to the earth, and yet many genera even of the mammals are confined to a limited habitat, and at the mercy of changing circumstances on account of the particular kind of food to which exclusively they are led by their instinct. Even the last, widest limitation of this sort—that of being restricted either to vegetable or to meat sustenance—disappears in the human organization. Man's teeth present

the forms alike of the carnivorous and of the herbivorous animals; the joint-formation of his jaws permits equally of their being vigorously closed from above downwards, and of their being horizontally rubbed along each other; the length and arrangement of his alimentary canal equally suit the slower digestion of vegetable food and the quicker digestion of meat. Thus the range of means of self-preservation is for man a wide one, and on the other hand he is capable of being content with a small section out of the wide circle. The indispensable constituents of his food, albuminous bodies, the substances belonging to the group of starch and sugar, and fatty substances, occur—not, indeed, mixed everywhere in equally favourable proportions, but—no less widely among plants than in the animal world, and experience offers examples of nations that drew their means of nutrition mainly or almost exclusively from one alone of the two departments of Nature.

But I would add that the human organization has not even to compensate for any limitation to a smaller part of the material world at its disposal by important modifications of its vital activity, although it certainly cannot neutralize the actual want of what is necessary. The opinions at present most in vogue in regard to this subject are different, and people usually prefer as the most direct way to explain the peculiar character and amount of vital force, bodily and mental, by the kind and quantity of nutrition. The fact is, we have very little accurate acquaintance with this branch of animal economy; it is, however, probable at least that in the higher stages of civilised life with which we are familiar the amount of sustenance considered necessary often far exceeds the real need. The conservation of heat alone may render necessary the consumption of considerable quantities, and this could be most conveniently met in milder climates by a vegetable diet, in colder by the use of animal fat; on the other hand, the waste of the body by the exercise of function is certainly much less, and hardly requires for its repair any large consumption of the meat-diet which is unquestionably more

appropriate for such repair. The superfluity of new matter introduced either causes a useful increase of bodily strength, or else falls as a burden on the energies employed on the transformation of matter, and throws on them the useless labour of a second decomposition. It is unnecessary to mention the various diseases that evidently proceed from the latter circumstance; as regards the former case, on the other hand, the living body has a certain capacity of satiety that does not allow of its turning to useful account every excess of nutrition arbitrarily introduced. Hence richer, more abundant, and better food can contribute to the increase of the bodily powers only in combination with their constant exercise by which the capacity of assimilation is increased. Now the statements that to this end meat-diet is a far more effective means than vegetable, and that on the choice between these alternatives depends with equal necessity the vigour of the intellectual operations, do not hold good to the extent and in the sense in which both assertions are often made.

Looking first of all at the animal series, we find that the grazing ox of our herds shows no lack of bodily strength or of courage or even of pugnacity, though he feeds in the same pastures with the more patient cow; the mighty strength of bears and elephants is mainly sustained by vegetable nutriment, and the hyæna, on the other hand, exhibits neither great strength nor courage. Should the lion and his kinsmen be cited on the other side, we must recall that their ferocity is greatest when they are hungry, and so without flesh food; their courage then may at least equally well be deemed a means given them by Nature for the supply of their wants as a consequence of the substance in which they find that supply. As little are nimbleness and intelligence connected without exception with the kind of food consumed; contrast the chamois and the squirrel with the herbivorous sheep, the horse with the carnivorous dog. It is then undoubtedly possible for Nature, even within one tolerably comprehensive morphological type of the mammal world, to produce all

possible degrees of physical strength and mental activity on the most widely differing kinds of nutrition. The distinctions must therefore have their source in the innate peculiarities of the genera, and any one who should uphold the varying values of modes of sustenance as applied to man, would have to appeal to experience, not to doctrinaire calculations of the nutritive effect of different substances—estimations, the inconclusiveness of which is proved by the facts which have just been cited, and which might easily be multiplied. Those tables in which the several alimentary compounds are arranged, according to the amount of albumen or of hydro-carbons contained in them, as more or less excellent means of repairing waste of bodily strength or heat, tell nothing more than that in these substances there are certain quantities of a material that may be utilized, supposing the organization to which it is offered knows how to utilize it. Evidence of this latter condition is lacking. Between two substances equally abounding in albumen there may be slight differences in aggregate quality, in density, in composition with other substances, on account of which the one is decidedly inferior to the other in actual capacity of being utilized for the animal constitution. Thus we know how many cases occur in life of a preference for one kind of food and an aversion (that may amount to utter incapability of digesting it) for another, while in all chemical properties the two are closely akin. A substance with fewer nutritive elements may on account of accessory circumstances be more nourishing than another which contains useful elements in greater concentration and abundance but in less favourable forms.

Turning now to experience, we find that on the whole abundant food, especially animal food, without corresponding bodily exercise, instead of adding to strength, brings only increased bodily weight and internal disturbances; vigorous exercise supported by a very nutritious meat-diet, developes the greatest bodily strength, but not the permanently best health, for to be accustomed to abundant nutrition diminishes the power of doing without it; the same amount of exercise

with frugal but sufficient sustenance developes (along with a great, but not the greatest, amount of bodily strength) sinewy forms with greater power of enduring hardships, and it would seem even capacity of longer life. Exercise without adequate support brings on premature old age, but there is a lack of evidence that this weakening of the organism is specially due to a preponderance of vegetable nutriment. But the attempt directly to derive higher mental development from better food finds absolutely no support in experience. Cold garrets, in which often no other food than an insufficient quantity of bread was consumed, have witnessed the birth of more immortal thoughts than ever were fostered by the more luxurious repasts of the men of talent of these days, and the rising generation, which has at last discovered in the application of phosphorus the road to an increase of intelligence, finds itself in possession of a store of knowledge accumulated by many centuries when as yet this means was unknown—a store hard to be surpassed with perceptible rapidity. Finally, should it be maintained that not so much intellect as practical vigour and courage is produced by better food, we could only be forced to make a bitter retrospect of the activity not so long since manifested by the better fed portion of the nation; those alone did we then see act vigorously who had previously made use of their more fortunate bodily conditions for exercise in action. And that they had done so was due to a courage the life and vigour of which have nothing to do with food, but as to which it must be allowed that it invariably finds in adequate repair of bodily waste the means of gaining strength for achievement. For surely no one will deny that this latter is dependent on the state of the body; but that ardour and persistency of will are directly determined by the same cause we can allow only as regards cases of undoubted disease; besides, the melancholy decline of spirit for speculation no less than for practice indirectly proceeds far more from a concurrence of unfavourable social conditions of life from which intellectual life seeks in vain to extract the nourishment which it needs.

Man's not being dependent on one particular kind of nutriment is in part the source of his capacity of adapting himself to the most widely different conditions of climate. Not, however, the sole source: and here the animal species are inferior to mankind not solely through their need of a more special kind of food. Although Nature has bestowed on the lower animals in their alternation of a thicker and thinner hairy covering a decided protection against varieties of temperature, yet but few of them are capable of enduring removal to a distance from their natural climate, and even these only because as animals domesticated by man they have the advantage of his regular tendance and of the protecting shelter prepared for them by his hands. Few species thrive even on their habitual food when they are withdrawn from the natural surroundings of their life. Now, if their organization contains a number of unfavourable conditions—little known to us—which prevent their acclimatization, it is, on the other hand, not probable that the human body in itself presents conditions much more favourable thereto. This would, on the contrary, come to ruin still more hopelessly if it had to depend solely on the resources of its organic operations, and if the skill of the hands guided by the soul's reflective powers did not provide it with a considerable number of variable and better means of defence. That Nature left these instruments of action free in man for the most manifold uses, and did not give them merely the single task of supporting the body, constitutes the true and preponderant significance of the upright position which has in all ages been looked on as the source of the superiority of the human form over that of all kindred animal races.

A more poetic than scientific, sometimes a rather sentimental than correct conception has—it appears to me—mistaken the point where the meaning of this distinctive characteristic is to be sought. It is all very well for æsthetic feeling to see in the upright position a symbol of man's destiny to exalt himself above the earth and turn his face towards the stars; at the same time we cannot deny that

the stars of the horizon are with equal convenience gazed at by the quadruped; on the other hand, to view those of the zenith compels even us to put our head in an uncomfortable posture. And the heads of all animals are not after all so notably chained to the ground; on the contrary, the giraffe and the camel might boast over us of the far wider extent of view which is made possible for them by their slender neck. Nor is even the smaller degree of contact with the ground by means of only two feet our exclusive privilege—it is shared with us by all the birds. That lengthwise our body is almost perpendicular, while in birds the back-part at least is mainly horizontal, is the only nearly universal distinction, but one on which we can hardly base our superiority. We are, on the other hand, unequivocally differentiated from birds and mammals by the free and many-sided function of our arms, which are organized not to act as supports to the body or, like wings, as means of locomotion, but to perform an inexhaustible variety of operations.

The attempt has been made to show that the arrangement of the upright position exerts a powerful influence on the plan on which the rest of the human body is formed, and in many respects correctly, though we cannot share the enthusiasm with which Herder deduced almost all the advantages of humanity from this one source. But as we cannot see how in itself a vertical is more dignified than a horizontal line, it seems to us that the attempt should first of all rather be made to demonstrate the necessity of the upright position, which is not in itself anything superior, but superior only inasmuch as it forms the condition of a larger amount of vital actions. Now I hold that it is possible to prove that, for a creature belonging to the mammal group, the availability of hands and arms, on whose endless advantages we shall hereafter have occasion to dwell, is conceivable only on the supposition of the erect posture. The matter is different as regards insects and other low kinds of animals. Nature has supplied them with a larger number of extremities, and sufficient supports for the horizontal position of the body

would still remain were some of these developed into free hands — as we see them actually endowed with organs of somewhat similar character in feelers, antennæ, and claws. The mammal type presents only two pairs of limbs; if the one pair is to be applied to free movement, the support of the body (in this case much bulkier) must devolve exclusively on the other, within whose vertical axis, consequently— to consider in the first place a position of repose—the body's centre of gravity must fall. This does not lead directly to what we call man's upright posture; the mechanical problem is solved also in the structure of birds, but on the principle of the mainly horizontal extension of the greater part of the bodily bulk. In birds the bones of the pelvis extend backwards, and the fan of the tail-feathers is attached to the tail-vertebræ. Frequently far longer than the body, the tail, in spite of its light weight, by taking advantage of the counter-pressure of the atmosphere under favourable lever-relations, acts as a counterpoise to the weight of the body, which stretches towards the other and front side of the fulcrum. The acute-angled curvature of the thigh towards the front, and the force of the muscular action that keeps it mainly in this direction, push the fulcrum, which naturally would lie in the middle of a line joining the two sockets of the thighs, more towards the front, nearer to the body's centre of gravity; finally, in many species the essentially insignificant weight of the head is also bent backwards, by a long curved neck, towards the middle of the body and near to the centre of gravity—in many attitudes even behind this last, so that it can act as a counter-weight to the front half of the body. By such arrangements walking on two feet was rendered possible, and the arms could be freely developed into wings. But in order to their being available for flight it was requisite that they should have but a light bodily weight to move; the saving in bulk, which is a necessary principle of the construction of birds, is, among other cases, strikingly exemplified in the slenderness of their legs, whose motor muscles are placed close to the body, while only strong thin

sinews traverse the length of the leg. Thence arises an instability of equilibrium which is very perceptible in the body of birds. The trifling bulk of the legs cannot by its mere weight easily counteract the disturbances of the centre of gravity above the level in which they support it; hence we see birds adjust their balance by simultaneous movements of the wings, the tail, and the head, the joint effect of which, partly by atmospheric resistance being made use of, partly by the changes of position altering the centre of gravity for the body, counteracts the tendency to fall. When birds are quietly walking, it is mainly in the pushing forward and drawing back of the neck that this effort after equilibrium shows itself.

Such resources the organization of mammals does not possess; they could not balance their far more bulky bodies in the horizontal direction on two equally thin shafts, for they have as a counter-weight neither a fan-shaped tail of feathers nor wings by whose pressure forwards against the air the excessive weight of the front half of the body could be counteracted. Perhaps a refining ingenuity might devise all sorts of fantastic alterations by which this end should be effected; but they would be sure to deviate from the fixed type of mammal formation more widely than the device actually adopted by Nature, the erection of the longitudinal axis with all the modifications of shape necessarily following in its train. Chief among these is the formation of the legs. First of all their bulkiness, which forms a distinction between man and all the animals akin to him, for even the elephant's four legs are a smaller part of its bodily mass than are man's two compared with his. This large size was requisite in order partly to balance, by a certain counterpoise, the great weight of the body, which is wholly thrown upon the axis of the legs in bending and stretching, partly to render these movements themselves possible by means of powerful muscular action. Hence the pelvis and its connection with the thigh are abundantly surrounded with muscles, forming a contrast to the corresponding part in the body of the monkey. This

large supply is continued downwards below the femora, for the trunk depends on the two sockets of these bones alone, and every sideward turning of it to be executed when the feet are planted on the ground requires (since the line joining those sockets must fall differently) a deviation of the legs in opposite directions from the previous perpendicular of their axis. If the erect body planted on both feet turns to the right, the axis of the right leg deviates backwards behind the perpendicular to the left, that of the left leg bends forwards towards the right—movements of insignificant extent but great force, and not capable of being usefully executed without the important muscular masses that, running down the femur, produce the variableness of its position in respect of the pelvis. A like array of muscles is required for the execution even of the act of rising, especially when it has to be performed under the pressure of a carried burden; the further problem, how to stretch the knee-joint vigorously, leads to the enlargement of the muscular mass of the thigh; while quiet standing, the result of this exertion is kept up in a simpler manner. For in a standing posture the bony axis of the leg is not in a quite straight perpendicular line, but the thigh forms with the lower leg, in front at the knee, an obtuse angle, and further curvature backwards is prevented partly by the knee-pan, partly by the strong cross ligaments that at the back of the knee-joint connect the extremities of the femur and tibia, and whose tension alone, without the aid of vital muscular force, maintains that position of the legs. The slightest movement of the body, however, especially such as is so easily produced by a carried load, disturbs this equilibrium, and makes it needful again to call in the assistance of muscular exertion. Moreover, the slight amount of relative turning power with which the thigh and lower leg are endowed, and that only under special conditions, makes it possible for the region of the knee itself to be free from considerable layers of muscles; on the other hand, they recur in quantities in the formation of the calf, whose development is likewise a characteristic by which the human

leg is distinguished from that of the most nearly related animals.

Man's walking is still more properly than the progression of animals a perpetually interrupted falling. The heel in rising from the ground raises along with itself the whole weight of the body, which is left to be supported solely by the balls of the feet and the toes; meanwhile the other leg, without any vital exertion, swings past like a pendulum, in order by its step in advance to give the body inclined forwards a new point of support. But it is not only that a natural gait requires this not extended but powerful raising of the body so that we have an impression of awkwardness where it is deficient, and of affectation where it is needlessly exaggerated; rising also from any kneeling attitude, climbing of heights, raising of any weight, render necessary the assistance of the same muscles. These peculiar necessities of motion, whose satisfaction is in the locomotion of quadrupeds divided among a number of co-operant parts, have made the shape of the human foot very different from that of the animal foot. A number of pieces of bone of various form and size, firmly and yet elastically connected by strong sinewy ligaments, form a flat arch-shaped vault that touches the ground only before and behind, the middle of the foot being raised. On the highest point of the arch, near the hinder end, is the ankle, on which falls, at right angles to the foot, the descending lower leg, and from which the whole weight of the body directs its divided pressure through the two branches of the arch, behind and before, to the ground. For muscular actions the foot thus forms a two-armed lever, to whose hinder branch, the projecting heel, is attached the short, thick tendon of the powerful calf-muscles, effecting that elastic raising of the whole weight of the body which is one of the most distinctive characteristics of human locomotion. The foot of no animal shows a similar contrivance. The several bones that in the human foot are closely connected together into a whole, distinguished even externally by its horizontal position as the foot from the vertical leg, have in the animal series undergone

many modifications and changes of situation. As the knee-joint has in the mammals been brought nearer the body by the contraction of the femur, so the heel-joint has been raised from the ground, and the prolonged bones of the middle of the foot are inserted between it and the modified toes. In many genera the toes form the only level of contact made use of in walking; a smaller number, the plantigrades, walk on the flat of the whole foot. The feet of monkeys, it is well known, are formed like hands, and designed as they are for a habitat in trees, for climbing and clutching, they are so little adapted for a slower gait, that they leave no room for doubt as to man's being exclusively fitted for the erect posture. He alone can stretch out the leg in a perfectly straight vertical direction, at right angles with the supporting and moving lever of the foot; all animals, when they walk, walk with bent knees, and hence require, in order to place themselves in an upright position of repose, a degree of exertion which man is saved.

We feel tempted to enter upon a close examination of the organic proportions which here we have only been able to indicate in a very sketchy manner; still more interesting would it be to inquire what further effects this determination to the upright posture exerts on the structure and operations of the rest of the body. There is no doubt that the details of the organic structure are closely bound together, but the present results of scientific research compel us to assert that the extraordinary influence attributed in this respect to the upright posture do not admit of being wholly proved. It is rather merely from the actual combination of the human form with an upright gait, and from the admirable æsthetic harmony between that form and the significance of this mode of progression, that the conclusion is drawn, that there is a mechanical connection between the perpendicular direction of the axis of the body and the other characteristic features of the human body. No important reaction on the structure and functions of the internal organs can be ascertained, and the hypothesis of Herder, that in the upright posture all the forces would act differently, and the blood stimulate the

nerves differently, is without foundation, if it be applied to notable differences of demonstrable importance for the mode of life. Even in the external structure of the upper part of the body we find but one considerable distinction between men and animals, the different position of the maximum diameter. In quadrupeds, the length of the cavity of the chest and the body from behind towards the abdominal side is greater than its breadth from right to left; in man, on the other hand, the ribs arch his chest mainly in the direction of breadth, and his breast-bone retreats nearer to the vertebral column. This difference can be traced in the shape of the pelvis, and even of the legs; the thighs of most quadrupeds are flat, pressed together on both sides; the human leg shows in its curvature the increasing breadth that appears still more conspicuously in the shape of the hips. This arrangement is advantageous for an upright gait, for the weight of the body is preponderantly concentrated in the direction of the one plane that is perpendicular to the supporting position of the foot. The length of the foot would have had to be more considerable if it had had to act as an equally good prop to a mass having its greatest diameter from back to front. Towards the sides, on the other hand, the body is less unstable on account of the direction of the main ligatures of the joints, and requires less support; it has, however, quite sufficient, as in this direction where it is widest there are two feet to divide its weight and aid one another to counteract the tendency to fall sidewards. On the other hand, an excess of weight in the body towards the front is counteracted by two feet only when they are placed the one before the other; when planted together, they act with reference to any movement forwards merely as a support from which to start.

The formation of the human head we cannot prove to be a necessary result of an upright gait, however admirably, once there, it corresponds with the latter. The larger the head, and the longer the lever-arm of the neck to which its bulk is attached, the greater strength is required to carry it in a horizontal position during locomotion on four legs. The erect

posture saves this part of the expenditure of force, and it would be a still further advantage to distribute the weight of the head as much as possible symmetrically among the joint-blades that attach it to its immediate support, the cervical vertebræ. Hence the great alteration in the formation of the head which we find on passing from the mammalia to man, the enlargement of the arch of the skull and the diminution of the facial part through the nose and jaws being pushed back out of their prolongation towards the front, which mechanically is not necessary. The long-shaped head of the mammal might just as well have been balanced at right angles on the cervical column, as we find the foot, in man alone, hold this position relatively to the axis of the leg; nothing further would have been necessary than that the occipital foramen through which the spinal cord is continued into the cerebrum should be pushed somewhat more to the front, and the curvature of the cord as it joins the main direction of the cerebrum should be somewhat greater than it actually is in man. The brute-like formation often actually to be observed in the human head, the perceptibly projecting mouth and retreating forehead, a facial type characteristic of whole races whose gait is yet erect, show that the connection between the shape of the head and the position of the body, though no doubt real, is by no means inevitable. Of course the circumstance that the abdominal side of the body has now become its front part, towards which all locomotions take place, and towards which the activity of the arms is primarily directed, could not but make it fitting that the organs of sense should also be located on this side. But neither this nor the necessity of providing space for a brain increasing in volume as the ends of life became multiplied, in itself made imperative this wide deviation from the ordinary type of formation of the whole order of mammalia. Within the prevailing uniformity of this type, however, there are characteristic differences between different genera in the formation of the head, partly owing to peculiar food-cravings and the means necessary for their appeasement, partly connected

with the general mental disposition and temperament; and so we may be content to look on the formation of the human head also as that variation which offered the most distinct expression of an inner life intended for a higher destiny.

But supposing we had cut ourselves off from this conception by the unfavourable side-glances which we have already turned on views inclining towards a symbolic interpretation of natural forms! Those strictures were not, however, intended as a denial that beauty is one of the ends of the creation: what we could not grant was merely that Nature's principal aim is representation. Where she calls a creature to a great destiny, her first task is not to stamp on him an external form as the seal of this vocation, but—an endowment of far greater importance—she puts at his disposal all practical means for realizing his vocation and maintaining his rank. She gives him first of all the power to *be* something, not the form to *seem* something, in confidence that the actual possession and use of power is the surest means to gain also its show. It was therefore of little immediate consequence that man should stand upright in token of his dominion, seeing that the penguins of the Arctic Ocean can copy him in this attitude with vain solemnity; what was of more moment was that this position alone makes possible for him those actions by which he veritably wields dominion over all other orders of beings. When the important matter was accomplished, and the kernel formed, any one might find it likely that the shell would match it, that in the external form the total inner character should find expression, so far as mind can be expressed by space-filling forms. Even here, however, appears the doubtful character of that symbolism which directly connects mental qualities with spatial form, without taking into account, as an intermediate link, the mechanical practical significance of that which appears under these forms. I do not speak of the naive conception of beauty as contained in simple numerical relations, according to which by these proportions occurring in the external form of any phænomenon, no matter what be its character, beauty is at once imparted

to it. On the contrary, what shows the emptiness of these symbolical views, that dwell after their manner on the significance of the parts, is the fact that there is hardly any conceivable form of body that might not with equal profundity be satisfactorily explained. If man walks upright, it is significant that he touches the earth only with his feet, raises his head towards heaven; that he does not fly is significant, as bearing witness to his constant connection with his mother earth; if he walked on four feet like the giraffe it would be still more significant, for then he would turn towards mother earth, as were fitting, only his earthly part, the body, while his head, disdaining aught lower, rose on high. How significant is the defiant expectation with which, as it is, man turns his broad-arched chest to meet all storms! But had he the bird's projecting breast-bone, that again would be significant, for he would then really be setting his courage to meet the current of events; finally, were his chest deeper and hollowed out, how aptly would this form symbolize his longing to embrace the world within his heart! In such a play of sentimentality and idle ingenuity ends always the passion for an immediate interpretation of spatial forms which can never have been designed by Nature as such, or because they are in themselves fixed modes of manifesting an Idea. If there is an expressive beauty of forms, we perceive it always when in the form we discern the action to which it is adapted, when from the lines of the body as they softly blend with or stand out in sharp contrast to one another, from the proportional size of the several parts, we are enabled to form an idea of the intensity of vital force, of the ease with which it is called forth, of the rapid changes of which it is capable, of the enjoyment procured for the living being himself by the harmonious equipoise of his manifold parts, of the feelings with which these peculiarities of his structure fill him, and lastly, of the passion that slumbers within, ready to burst forth, or is kept in check by him.

But this idea of life can be formed only by one who is himself alive; nothing but personal experience and observa-

tions of other orders of beings made under its guidance, can teach us to find in the human form the expression which we admire. Nature did not give man a perpendicular forehead that he might look intellectual; the forehead in itself is nothing but a blank wall. Only experience and man's unconscious scientific instinct taught him to look here for the workshop of intellectual life, and to estimate its power by the dimensions of this part. No doubt there are forms that have a certain beauty—not the highest—without reference to their meaning; but they are far better represented by the symmetrical shapes of crystals and the graceful many-coloured forms of flowers, than by the outlines of a human head. Were it natural for the root of a tree to be shaped as that is, we would soon persuade ourselves that the curvature of the arch of the skull, the curved lines of the eye-sockets, the rounding of the cheeks, the incision of the lips, have in themselves no charm. All this, looked at merely as a form, is a confused agglomeration of elevations and depressions; not till we know what mental powers work within that monotonous arched outline, what sweetness of disposition uses eyes and lips as the instruments of its influence, not till we understand this do those material forms become in our eyes beautiful. Nature, then, did not bestow on her creatures certain forms significant in themselves, by whose self-interpreting symbolism their inner life should have a fitting expression; but inasmuch as she gave to living beings the means of action, the forms, in themselves meaningless, in which this organization found its outer manifestation, became at once symbols full of meaning for all whom personal experience or the observation of surrounding Nature had endowed with capacity to divine working force below the surface.

That this force did reveal itself and was not wholly concealed by a homogeneous exterior, may certainly be reckoned among the designs of Nature by those who care to speak of such. She made the exterior correspond to what lay within, not assuredly that there should be this manifestation; she did not care that the inner life should express itself, for what had been the good if this correspondence had been brought to the

utmost perfection? The manifestation of a being always presupposes a second to which it is manifested, and the joy of reciprocal existence for others thence flowing, is the real and serious end to which all manifestation is subservient. It were, on the other hand, an idle play of the pendulum, if, without this purpose, the creative Cause of the world merely brought about a perpetual oscillation between the manifestation of being and the recollection of that manifestation, the familiar wearisome *primal motion*, in which the upholders of the fatal view that resolves all into symbolism without any practical value, here again fancy they see a sacred and inviolable necessity. The animal is intended, not for a solitary existence, but for intercourse with his fellows; the nobler and more comprehensive is the content of his life, the more is he meant not merely to receive blindly the influences of others, but to gain insight even into the internal workings of others which are not at the moment acting upon him; on this comprehension and sympathy all intercourse rests; and just what is expressed in that word distinguishes the mutual relations of living beings from any reciprocal action of material substances. The members of each species then will first of all understand their fellows and be beautiful in their eyes; but if higher ends of life have bestowed on some privileged creature a many-sided organization, whose greater fulness enables it to throw itself into the simpler experience of less favoured races, and sympathetically to repeat and understand this, we will not blame it should it constitute itself a judge of the beauty of forms, finding the highest perfection in that which reflects the most significant inner life and every slightest feature of it most distinctly.

How could we deny that in both of these respects the human body stands at the head of the scale of creatures, divided by a great chasm even from those whose formative law most resembles its own? Even a fleeting glance cast over the scale of animal forms, shows that its development mainly consists in the soul's susceptibility for impressions from without becoming always more delicate and easily awakened, its

reacting dominion over the smaller world of the body itself as over the greater outside world, becoming always more many-sided and yet making use of always simpler means. Nature encases her lower offspring in rigid armour and shells that allow only a manifestation of the final stir of effort in the outstretched limbs, not that of the vital elasticity of the body in repose; gradually she diminishes this rigidity; the bird's covering of features, the fur of the mammal, by degrees bring to view the increasing mobility of a strong and pliable muscular system which was wholly concealed by the scaly mantle of the fish; but it is man's naked skin that first discloses all those slight strainings and stretchings which, supporting and aiding one another in search of motion or equipoise, run through his frame like a connected melody. Here first of all full warm life with its pulsation reaches throughout the whole of the outer form, while an uncomely and angular figure is but disguised in the dainty bird with a softly-rounded covering of feathers; in many quadrupeds by a bushy mass of hair. As we rise in the animal scale, the head, the seat of the ruling will, comes more and more out of the indistinct mass of the body, into sharp contrast with the rest; neither retreating stumpily into the body as in the crustacea and fishes, nor, as in some weak-minded insects, too mobilely suspended to a thread-like shaft, already in the mammals it comes first as the vigorously ruling beginning of the body, but nowhere is it so conspicuously set on its summit as by the neck of erect man. And the mind whose seat it is, possesses a quiet and noiseless power over the world, not one that, with much ado and a great expenditure of means for the conquest of the outer world, only betrays how much exertion it has to make. Therefore the head does not increase in volume as the sphere of its achievements enlarges; did the bulk required by the soul for its operations grow greater, the spell of its power would wane; the multiplicity of means to which it was forced to have recourse would but betray its own helplessness. Nature may then bestow fantastic prolongations and excrescences on the organs of sense of lower creatures, but in the higher ones, and

most of all in man, she unobtrusively arranges them within a small space. The eyes do not protrude and stare into the distance, as if in fear that things will escape them; quietly resting in their arched sockets, they are, on the contrary, assured that they can dominate even what lies most remote. The mouth projects neither for the taking hold of food nor for calling; the significant sound of articulate speech will come without exertion from the lips, for it is no longer with the force of the shriek that the soul works, with that hoarse cry, to emit which, the animal must with an effort stretch forward its head and neck. In regard to the organs of locomotion, Nature's procedure is similar. On lower creatures she bestows a number of prehensile arms, with suction-bowls, warts, hairy appendages, without bones and joints, with a repulsive power of turning in all directions; in the higher ones she restricts this expenditure, diminishes the number of limbs in general, and especially of those which are identical and similar. She cuts down the superfluous mobility of too great a number of joints, and leaves it only in diminished proportion in the fingers of the human hand. But, to make up, she expands the remaining limbs into quick fulness and roundness; the pulse of life pervades the arms and legs of the human figure to their extremities. How different appear to us the thin legs of insects, curved by a number of joints, externally attached stilts, in whose thread-like dimensions it seems impossible that a full life should stray! How different the stiffness of the sinewy leg of the bird, and how inferior are even the domestic animals, whose strength and graceful motions we admire, as regards complete, soft, and vigorous animation of the whole bodily frame!

But why should we continue a line of thought that could but enumerate one by one the advantages whose living union alone brings home to the mind the full value of the human formation? Be it then left to the student of Nature or of Art to enter into the significant beauty of a form whose practical utility it has been our aim in these reflections to bring into relief.

# CHAPTER V.

## VARIETIES OF THE HUMAN RACE.

Conditions of Individual Development—Inheritance of Race-Characteristics and of Individual Traits—Resemblances to Brutes—Varieties of Race—Hypotheses as to the Origin of these Varieties—Negroes, American-Indians, Malays, Mongols, Caucasians—Notions of *Kind* and *Variety*—Transition to Book V.—Darwinian Theory.

§ 1. UNDER the influence of a common illusion, the traveller in a new country thinks every face exceedingly like every other; the national characteristics really shared by all stand out in such striking contrast to the type of his native land, that the many differences combined with them at first escape his attention. Perhaps it is from a similar prejudice that, in those orders of animals whose organization differs more widely from our own, we are apt to see only resembling specimens of a generic type, and—except a variable amount and power of development—to perceive no essentially individual qualities by which one is distinguished from another. To the animals themselves perhaps it is not so; and yet we are not wholly wrong in our prejudice. For even in the higher orders much more akin to ourselves in organization, so far as our observation extends, the generic character is so strongly prevalent, that in comparison individual qualities hardly come into view; not till we reach the domestic animals, to whose lot there falls, from their contact with human beings, a peculiar and different training and experience, do we see bodily and mental individuality more copiously displayed. Even in the human race, which without doubt incomparably surpasses all orders of animals in sharply delineated personal characteristics even of the body, this variety is not spontaneously and naturally developed. The more alike the lot and occupations of

individuals, the narrower their intellectual horizon, the lower and more one-sided altogether the civilisation of a race, the more do we see those who belong to it fall into great monotony of bodily and mental character. Round this fixed point of the general type individual growth performs its gyrations with deviations in various directions; but in attempting to ascertain the amount of deviation which it may undergo and the determining causes of its peculiarities, we enter on a field where the present state of our knowledge affords not only no certainty, but frequently not even the grounds of a decided opinion in regard to the probability of the hypotheses which we may be inclined to hazard.

Taking the infant human being as our point of departure, we find that external psychic and physical influences of education, the impressions created by personal experiences, and the free exercise of all the powers, may indeed lead to extraordinary differences of mental development, but that they to a very inconsiderable extent modify the corporeal constitution received at birth. Numberless obstacles may indeed come in the way to hinder the full development of an original capacity; and the very circumstance that by removing such obstacles education achieves astonishing results, makes it seem probable that it might not only secure the development of existing capacities, but also bestow and implant such as were absent in the germ of the individual. Even if this does take place to a very small extent, if in particular the growth and muscular strength of the body—both intended by nature to increase with advancing years — may be promoted by a judicious gymnastic training, on the whole neither the form of the body nor its tendency to a one-sided or morbid development is much affected by the influences that after birth act on the living being. Only on the features of the face and, by means of the habits of locomotion formed, on the carriage of the body, further, on the general refinement of the outward appearance, do we find higher intellectual cultivation exert a decidedly favourable influence; while with all this peculiar ennoblement it is yet powerless to efface the main outlines

laid down in the original design of the form. Those who look on the individual soul as the maker of its body must yet acknowledge that its moulding power soon ceases, and that even during the time when such may be exercised it is fettered in a twofold manner. It is not only compelled to frame a body conformable in general to the laws of the species, but in particular also it cannot get rid of a number of peculiar characteristics belonging to the parents, and the more these both represent in outward appearance the same family-type, the more certain is it that this familiar form which the generic type did not present, but only left room for, will be repeated also in their descendants. Gradually, however, in the course of generations, without the barriers of the family-type being overstepped, we find new individual peculiarities of formation appear, as to whose origin we can frame but few credible conjectures.

We know nothing about the physical agencies through which the capacity for repetition of the generic type is implanted in the organic germ, nothing about the processes by which the usual resemblance of children to their parents is brought about; we are ignorant even of the causes that determine the sex of the child. Still less can we explain the divergences through which the common family form gradually passes into different individual forms. We may, however, suppose that the changes wrought by the lapse of years on the organization of the parents, their acquired tendencies to disease, their habits of life, even their advancing age, may all have an influence on the special character of the individual about to come into being. Such may be the circumstances that in the same family, even supposing an originally identical type in both parents, gradually bring about a series of individual modifications. The mode of propagation common to all higher animal species must, however, again limit both the width of the interval between these individual forms and the length of time during which they are kept up in succeeding generations.

If we wish to propagate varieties of a plant, we must, in

order to secure the result, make cuttings. In these a great number of cells in organic connection have already become habituated to that peculiar variation of vital processes by which the variety is distinguished from the more general type of the species. Hence this strong and full current of life presents a degree of power such that it cannot easily be diverted by extraneous influences from its self-chosen path of development. The seed of the plant, on the other hand, perhaps also contains the same special formative tendency, but it is represented by a comparatively small mass, nay, probably only by particular relations between particular parts of this mass. This smaller amount of formative motion is more easily during development driven back by extraneous influences into the common road of the higher specific type, whose form has a far firmer basis in all the relations to one another of all the elements of the seed. Hence from the seed of the variety we find proceeding sometimes the specific type, sometimes other varieties, only now and then exactly the same variety. If plants of the latter are selected and allowed to grow and yield seeds under the same conditions as those under which the original plant acquired its peculiar formation, the type of the variety sometimes, after a few generations, becomes fixed, and can then be propagated by seed; but a continuance of unfavourable circumstances always tends gradually to bring it back to the form of the species.

This latter mode of propagation is the only one known in the higher animal world. Hence it is from the first doubtful whether every peculiarity of the parental organization will be effectively represented in the elements of the masses prepared in them to be the germ of the future form; this of course depends not on what is the form of the producing body, but on which of the details of its formation is so imprinted on particular relations of parts of the germ that they must be reproduced in the subsequent development of the offspring. We should therefore be quite inclined to allow the influence of general derangement in the functions of transformation of

substances and of nutrition, and of widely-diffused diseases of the lymphatic or nervous system; the effects of such alterations might extend even to the formation of the propagation germs, and along with hereditary tendencies to disease might also determine a certain deviation from the general normal relations in the embryonic form. This deviation would resemble the peculiar formation of the parents, if their constitution also had been formed under the influence of a hereditary tendency to disease; on the other hand, it would distinguish the children from the parents, if a disturbing agency induced in the course of life had inwardly modified the organism of the latter without materially affecting its outward form. We should think it much more questionable that purely personal peculiarities of figure, and most questionable of all that accidental disfigurements, would be repeated in the children. And yet experience offers an extraordinary number of cases of the former — peculiar types of lips, of eyes, of nose are distinctly transmitted by inheritance through many generations; even malformations not accounted for by anything in the general type of the species, such as hands with six fingers, are transmitted in this manner; only the heredity of accidental disfigurements not so transmitted to the parents has no support in experience. On the whole, therefore, the transmission of peculiarities that have once found a place among the details of the organization takes place more regularly than we were inclined to think; but this throws light far more on the steady propagation of existing peculiarities than on their origination within a common type. The rise and gradual transformation of diathetic tendencies into the formative impulses of generations is almost the only thing here clear to us; but the variety of individual forms developed out of the human type does not consist of a number of specimens of degenerate growth.

But before going on with this inquiry, we must speak of the other obstacle that seems to come in the way of a special formation once anyhow originated becoming fixed and propagated This is the crossing of different species. The male and

female flowering organs of the plant are produced generally in close vicinity to each other, properly on the same stem, the sum of vital conditions acting on and maturing them is for both the same; it might be expected that under such favourable circumstances their contributions to the form of the seedling would be perfectly harmonious, and so fit into one another as to yield an exact reproduction of the family form. But just on this very account does Nature seem to have prevented or made difficult the self-fertilization of plants; she meant to reproduce not the individual characteristics of the parent form, but the more general form of the species; to this end she required the co-operation of such seed-substances as, having originated under divergent conditions, did not arbitrarily seek to propagate the same individual peculiarities. Cross-breeding meets this demand of itself; however completely the parents may originally have represented the type of the species, they have yet exceedingly seldom grown up under identical outward conditions; in human beings, whose spheres of life present the most striking variety, the individualization of the common character is likely to have gone farthest. Among the alterations which the bodies have thus undergone there may be many that do not tell in propagation in any physically effective manner, there will be others that do. From the meeting of such varied formative impulses new forms may of course appear in the offspring; but this crossing, which further compels every peculiarity so produced to co-operate with one foreign to itself, will prevent the fixing and unaltered propagation of any one. The more, in particular, moral customs encourage marriage beyond the narrow barriers of relationship within which a single type prevails, the more will the blending of heterogeneous singularities hinder the family form from being sundered into a number of fixed but very dissimilar forms, and instead bring about a general and unceasing fluctuation within narrow limits about the centre of a tolerably constant average type.

By what other laws the variation of the bodily formation of the parents determines that of the child, we have few

extended data of experience to inform us. If we may assume that on the average the offspring strike a medium between the two parents, it is yet a question what the medium means. In particular respects, as perhaps of stature, of corpulence, and of many other details of form, the two formative impulses do seem, like two mechanical forces, to unite in a joint resultant in which each has a share proportional to its strength; in the physiognomically significant formation of the face, on the other hand, we seem frequently to see a combination of particular features, some belonging to the father, some to the mother, so that in the whole, almost as in a chemical compound, one element seems to take the place of another equivalent to itself. Thus it is not uncommon to see the mother's eyes and the father's hair united in a countenance of which the other features perhaps present a blending of the peculiarities of both. In other cases, however, either the paternal or the maternal type is decidedly prepotent—why we know not. Only with regard to the sex of the children is one generalization tolerably free from exceptions, that when the father is older more boys are born, and this in a ratio that increases with that by which the father is older than the mother. Here it has been thought is one of the causes of an excess in the number of boys born over that of girls, which is not found in all countries, but, where it does occur, is constant. As, however, this difference in age does not exclude the birth of female children, the generalization throws little light on the causes of the notorious fact in question. Greater bodily strength and vigour on the one side apparently does not determine accordingly the sex of the children, and has little power to neutralize in the constitution of the latter the effects of bodily weakness or disease on the other side. That, further, formative impulses may pass over a generation or remain dormant in it, and that the features of the grandparents not seldom reappear more distinctly in the grandchildren, is a familiar remark often made. Even the belief, rejected in recent times, that the phantasy of the mother can impart to her child the features of a picture

that has made a strong impression on her, I cannot regard as impossible, in view of undeniable facts, although, persuaded as I am that the soul's moulding power is confined within narrow limits, I readily surrender the fantastic misapplications that have been made of this idea to explain every possible malformation.

If we now make these lines of thought converge on a common point, we find that there is but one opinion we can hold as to the origin of individual peculiarities. The organization of each individual receives a characteristic stamp from the course of his life—which is identical with that of no other of his family, and works by means of special influences never exerted exactly alike on several persons. Now, although these influences may be unable to produce in the already fixed bodily form of him who is subjected to them perceptible deviations from the general type of his family, a stronger replica of them may appear in the next generation, whose whole development from its rudimentary beginnings onward is carried on under the influence of this altered constitution of their parent. Inequality among processes, the preponderant activity of a particular group of organs, the special direction taken by the preparation of the bodily materials, the one-sided stimulations of the nervous system, lastly, the habits of disposition and fancy which have been formed, and whose subtle influence on the form may be more noticeable in the moulding of the embryonic than in the modifying of the adult organism—all these conditions present in the parental bodies may suffice to separate one original family type into a variety of individual forms. And as organic Nature nowhere permits one constituent of its products to be altered without reference to the others and without their being also correspondingly modified, this sum of conditions will produce peculiar transformations even in such parts as do not directly come under its action. The continuity of organic formation may therefore differentiate the embryonic body still more widely and characteristically from the form of the parents than was to be expected from the several sources of the transformation. We have to

look here for the causes of acclimatization, which in the course of a few generations renders innocuous the external conditions that were originally fatal; the bodily constitution of the descendants has doubtless here become more self-accordant, and has recovered in new forms the equipoise lost by the adult and unpliable frames of the ancestors under the pressure of unaccustomed external disadvantages.

Perhaps the same idea of a pervading unity in organic form may afford in another direction a clue to the multiplicity of individual forms. Although the variety of these forms is so great that it is possible to distinguish by a name every one from every other, it is yet unlikely that it is a wholly planless multitude so that any special formation of one part of the body might form with any form of another a combination which it should be possible for the constructive forces of the organism to realize. No doubt the fancy of the caricaturist goes beyond bounds within which Nature herself must keep. Not every formation of head is possible along with every body, not every shape of arm with every shape of foot, quite apart from extravagant proportions of size, which are for the sportive fancy the easiest means of producing fantastic and impossible forms. In the general symmetry resulting from the law of the bodily structure, only fixed values of the variable magnitudes of which it is composed can be combined into a possible and realizable form. Now it is not unlikely that those combinations of parts which constitute a stable equilibrium are no other than those which Nature elsewhere employs in the formation of other and original generic types. It is an old and familiar observation that occurs to every one in daily life, how strongly the countenance, bearing, and movements of certain people recall those of certain kinds of animals. I would not have this observation interpreted to mean that Nature here amuses herself with an aimless repetition of preceding types, which would assuredly be out of place if it could not be justified on the ground of a mechanical necessity. The idea of such a justification may be suggested by the pervading

similarity effected by the most general law of form that governs the whole series of the vertebrata. If Nature is once led by any incidental conditions into a characteristic deviation from the normal human type, she will most naturally and readily fall into one of the fixed combinations on which in other species she has already imprinted the character of constant types, and which thus are proved to be easily derivable from the general principle of form within the vertebrate group. Of course she will not put additional animal features to the human form, but keeping rigidly to the human contour she will within that repeat the characteristic lineaments of an animal species with a distinct approximation to the general effect, such as is better known to all of us from direct observation than it could here be described. We may add that these animal resemblances are usually as a matter of common observation recalled only by the form of certain parts, especially of the face, but that they may in fact go through the whole frame and its operations.

Who has not seen pale people, with sparse hair, fish-like, prominent round eyes, and the mouth of a carp? They have a habit of smacking their lips, their skin is cold and moist, they seldom tread audibly, but rather glide about on flat, shuffling feet whose whole sole touches the ground. In others with the nose of an eagle is associated the sharp ledge of the socket of the eye rising in a round arch and the dark flashing eye of the bird; their face is not broad, the mouth without protruding tapers to the front; the comparatively long neck and narrow chest, the high arch of the foot with hollowed-out sole, rapid movements often marked by that jerky angularity peculiar to the bird's walk, complete this no less characteristic picture. Small white teeth usually irregularly set in dainty jaws, with a rather long-shaped face and a preference for a dry, sweet vegetable diet, occur along with a short slender figure and an elegant propriety of movement; we are reminded of quite different animal forms by the mighty jaws with crushing molars and projecting canine

teeth, evidently intended for the consumption of meat and bones, that open in a broad face, and are united with prominent cheek bones, a round-shaped head, a square-built frame, short and powerful fingers. But instead of multiplying such pictures, we will rather express a doubt whether we really are entitled to attach so much importance to them. Unquestionably the whole region of such comparisons is very slippery, and in fancying we can discern in them a serious law of formation, we may merely, with the wantonness of artistic fancy, be making, out of a few actual strokes, complete and harmonious pictures that have no reality. It requires no great keenness of insight to detect even in the examples above cited particular strokes that are indeed æsthetically alluring, but, so far as our present knowledge allows us to judge, physiologically unmeaning. We must therefore leave this idea to be critically examined after a much more careful and accurate study has been made of the forms that actually occur than has as yet been given to them—left as they have been to the casual observation of everyday life; and we assuredly believe that such critical examination would discover a grain of truth in the heap of fantastic comparisons.

§ 2. When we now return from this digression on the rise of individual forms to the general type of a race, our attention is directed, by the tenacity with which quite peculiar family characteristics descend often through many generations, to the much greater persistence with which any more general self-consistent race-characteristic will undoubtedly resist its own obliteration. We cannot doubt that in a race all the members of which share the same fundamental type, even its most trifling details will be continuously transmitted by inheritance, so long as no crossing occurs with differently developed races. The distrust entertained of the vigour and longevity of races that have long been propagated only by means of intermarriage within a confined circle of kindred types, finds nothing to justify it in a natural race-character, and holds good only where in particular families one-sided

influences of civilisation have given to the more general character a special development that, continuously advancing, puts out of balance the whole organic life. In surveying the history of nations, we find that, wherever an undisturbed home-bred succession of generations has taken place, the old national type of countenance and peculiarities of bodily structure have gone on unaltered for thousands of years. The monuments of Assyria and Egypt, which precede our chronology by many centuries, enable us to recognise in their pictorial representations the figures and features of the same races that now occupy these regions. The type of the Hebrew people, in spite of its dispersion through all climes, has been preserved distinct, and exhibits only a certain number of constantly recurring variations. Even the distinctive features of the Greek, the Roman, the Keltic, and the Teutonic build may still in particular districts be recognised as the prevailing type of bodily formation, in spite of the extraordinary intermixtures to which in the course of time these stocks have been subjected. In fact there is no reason to expect anything else. The organization of a natural species is not a piece of machinery so ill-fitted and easily broken that we should anticipate its being reproduced entire only in rare cases of successful propagation; we would do wrong to transfer a distrust of this sort, which seizes us in calculating the results of artificial contrivances, to the foreseen regular order of natural events. The tenacious persistency of species is therefore far less mysterious than their first development, if we assume that they too, with their much greater differences from one another, have been evolved from a more general generic character in the same manner in which we see the slighter variations of individual constitution arise from the type of a family.

That this much discussed problem of the specific unity or diversity of the whole human race cannot as yet be definitely solved, will, I believe, be pretty generally the impression of unprejudiced persons. But one doubt forces itself at once on us in regard to the setting of the problem. To give

a historic parallel to the logical and physical significance of the graded system of classes in which we combine families under a tribal name, arrange tribes into a nation, and bring nations under the category of a race, till at last we bring all races together under the one notion of the human kind, would be to make an arbitrary assumption. Its meaning, no doubt, is not exclusively logical; for we cannot mean to classify and arrange forms simply for convenience in reviewing them, apart from there being in their nature any affinities to justify alike their combination and the order of succession in which we place them. But just as we look on the different genera of plants as kindred modifications of a general type that in itself, as an actual plant, never existed, so the various races of mankind may be variations of a generic character that just as little preceded them in actual Nature. They are collectively the possible cases that may arise from the general equation of the human being, when the several constants on which the characteristic individual form of its constitution depends, are determined in this way or in that. In our ignorance of this equation and the mode of its physical realization we make an arbitrary hypothesis, if one that cannot at once be disproved, when we suppose that the generic type was originally embodied in an actual, and only in one actual, form, but that the varying determination of the constants, by which subsequent differences were to be brought about, took place in this already existent organism supplementarily and successively through the action of external vital conditions. We must, on the other hand, ever bear in mind the opposite possibility, that the realization of the general type in any actual form, if it once took place, prevented the historic development of other forms out of that, in the same manner as the child's bodily structure is indefinite within wide limits before it is begotten, and while it is only the organization of the parents that is fixed, whereas afterwards it has one constitution to the exclusion of all others.

It is natural that we should seek to decide between the two

possibilities by an accurate analysis of any particular case brought under our notice. No one will imagine a primitive mammal that once lived, and from which by means of external influences, elephants, camels, and oxen gradually came into being; in the varieties of the human race, on the other hand, the differences are not so excessive as to render impossible a historical derivation from a single source. It is true that no race of men possesses any physiologically important organ denied to another race; in none is the normal number of multiple parts, such as teeth or fingers, different from what it is in another; no single joint of the skeleton, no muscular layer, is formed or situated on different plans in different races; all are formed erect, all capable of speech; to all physiological processes are assigned on a common plan; in the duration of life, of pregnancy, in the attainment of puberty, along with numerous fluctuations to which, as regards each of these points, the human race is liable, there are no constant differences of time distinguishing one race from another. The actual differences are varieties in the proportions of size of the parts of the body, and more especially in the form and colour of the external coverings. Assuredly, if Nature had not made the Negro black, the Indian red, the rest of the organization of these races (whatever might have been the case with the analysis-loving naturalist) would never have suggested to the imagination of men in general any reason for treating them as distinct species, and excluding them from an origin common to all. For the actual modifications, like all differences resting only on proportions of magnitude and their changing combinations, pass into one another by innumerable gradations; even the contrasts of colour are made less striking by the observation that, while properly there are no intermediate tints, yet after all each race can show the distinctive pigment of every other in single cases, in particular spots of the skin, and that consequently even these divergences may apparently be evolved out of a common generic type. Finally, let us add that the different races can be propagated by crossing, and as the result of all, it will appear that these varieties of the human

race are connected together by the closest analogy of physical formation.

But all these circumstances, even the last, as I shall subsequently have occasion to remark, do not prove that a historical affinity of origin is involved in the physical analogy. Conciliatory adjustments that aim at minimizing the interval between two extremes by means of innumerable middle points, are not to be trusted; for, granting that by imperceptible alterations of quantity the one may pass into the other, in this very way anything may be made out of anything. But the question is, whether Nature with her operative forces can accomplish in the material on which she has to work the series of changes that our imagination can with the utmost ease carry out in a merely imaginary form. It is not difficult, by a constantly repeated slight blunting and sharpening of the edges and corners, to convert in thought any crystal form into any other. But the minerals themselves are less tractable; they often absolutely decline to assume, besides their usual form, another which, viewed merely geometrically, might seem closely allied to the former; for the formative forces, the interval between the two, is wide and not to be bridged. As respects the human form, we know not what is the value for it—whether great or small—of the differences of proportion which we meet with in the races; the value of the colour of the skin, on the other hand, I am inclined to estimate very highly, for by the general formation of the skin man is essentially distinguished from the lower animals.

Now it is true that the contrasts between particular races, formerly deemed to be striking, have to us now been toned down by our better acquaintance with many intermediate forms that fill the interval between the extremes. At the same time, I cannot find here a cogent proof of the unity of the human race. Historically it is extremely improbable that at an early period crossing should not have taken place even between races of very different types, whence by degrees a number of intermediate forms may have arisen. We cannot, therefore, be disposed at once to look on any peculiarity of

race now presenting itself as an original and distinctive form of the human species. It is in accordance with the nature of the subject, and has always been the custom, to direct attention here (as in the examination of any complex case where many intermediate stages connect very dissimilar extremes) more particularly to those conspicuous points in the series where marks, that thence in both directions decline in distinctness and purity, are most definitely concentrated into a complete and expressive image. Now if we find that there are several such points; if we find that a number of peculiar traits, which occur in different races as isolated foreshadowings, are gradually accumulated in others, and form among themselves a certain exclusive combination; if we find that at last, each severally standing out in greater distinctness, they are united in a more and more firm and characteristic combination, and that, moreover, the image thus arising is no chance anomaly occurring somewhere, but the uniform stamp of a great and widespread nation reproducing itself always after the same manner: these facts unquestionably admit but of the one probable inference—that in every such image we have an original typal form that is not the result of a gradual confluence of many and various determining circumstances. We should be much more inclined to look on the intermediate forms, lying between the conspicuous points, as results of subsidiary agencies by which one or another of the steadier race-forms has been modified into something less characteristic. The forms of the Negro and the Red Indian are examples of two such thoroughly living and harmonious pictures, the details of which an ingenuous observer could hardly derive from a myriad different petty influences from without. As against this, it is of very little consequence that even without any crossing of the races, many European heads exhibit the type of the Negro or his woolly hair—a fact, moreover, which, if one does not take a superficial similarity for real likeness, is probably far more rare than is supposed. It is of little consequence that even among Negroes here and there white or fair-complexioned children are born, and among Europeans cases

of partial darkness of skin occur. All these phænomena may be explained from disease or conditions limited in space and time; none of them is found among great nations of these races as a manifestation of their vital plastic impulses recurring uniformly through centuries. So long, therefore, as other considerations do not force on us an opposite view, the original difference of a number of race-forms, not very large though perhaps never to be precisely fixed, will be the more natural supposition; yet no doubt there is an independent, scientific interest in investigating the possibility of one of these types being modified into another.

Varieties in habitat, climate, food, and manner of life, as well as mental culture, have been set down as conditions of this conversion. There are, however, no historical observations to prove that a combination of these fluctuating elements is capable of bringing about such extensive alterations in human development. We are forced to note piecemeal the effects exerted by each of them within a smaller compass on the form of certain comparatively well-known races, and not even all of these single influences are established on adequate observations; still less trustworthy will be the conception we form of their joint result. The effect of light and shade on the skin has no doubt always been—for the popular imagination at least—the most convincing evidence of the power of climate. That the blazing sun of Soudan darkened the white man into a Negro, was held to be the most natural hypothesis, as a counterpart to which the other has not failed to be advanced, if somewhat less boldly, that the primeval black man has gradually, under favourable conditions, been transformed into the white Caucasian. The white race seemed in its two varieties, of the blonde with fair or red hair, fair complexion and blue eyes, and the brunette with black hair, dark complexion, and black eyes, to show a tendency to split up into different races; on the further supposition that the colour of hair and of skin results from the same physiological cause, there seemed every reason to expect that the various types might all be evolved out of this one. The facts did not

justify this expectation. The whole continent of America, extending through all the zones, was inhabited by a cinnamon-coloured race identical throughout, in spite of numerous modifications, to which only the tribes lying farthest to the north, in the polar region, do not belong; in the tropical zone of the old world, going from west to east, we find Negro tribes, brown Malay, and white Caucasian races living under hardly distinguishable climatic conditions; in the temperate zones occur both the Caucasian and the Mongolian types. Moreover, never, where intermarriage between the races was effectually excluded, has a white race in the tropics acquired, along with superficial darkening of the complexion, the velvety smoothness of skin, the crisp woolly hair, the shape of head, the type of mental life peculiar to the black Negro race; nor, on the other hand, though the Negro's skin becomes lighter in colour in a colder ungenial clime, and his countenance of a higher order under improved conditions of life, has he ever really taken on all the refinements of the Caucasian type. After America has for centuries been occupied by the two races beside one another without their showing any such results of a common climate, it is idle still to recur to isolated unanalyzable cases of such effects alleged to have been known at an earlier time. That in this matter thousands would effect more than hundreds of years is improbable; for during thousands of years we find that far less striking differences of constitution in closely allied races have persisted without any diminution. A compromise has been attempted with these facts of experience. Each race, it has been said, proceeded from the primitive race at the dawn of history, though not necessarily at the same time, in a climate that suited it, but when once in existence, it became fixed; and the general and fundamental type of humanity, after it has assumed one of these specific forms, can no longer by means of reversed climatic influences be brought back to its primitive form or changed into the forms of other races; only by means of intermarriage are intermediate forms produced. Many events, it is said, have further led to the varieties thus originating crossing the

boundaries of their original seats, and their present climatic distribution does not present the climatic conditions under which they arose. One can see, however, how little difference there really is between this theory and the other, that the primeval unity consisted only in the specific notion of man; for as, even according to the theory, the Caucasian can only be one of these types derived from climate, since had it been the primitive type it would still have been convertible into other types, the doctrine of a physically realized and historically existent primitive form is an arbitrary addition to facts.

Nor are observations in the animal world favourable to the strong influence of climate. One does not care to cite examples—the force of which rests on an equally insecure basis of conjecture—as perhaps the extraordinary variety of breeds of dogs. As we never find one of these change its type without crossing with another, there is no reason to suppose that they are various degenerate kinds of a primitive race; on the contrary, their original variety is no less probable than that of men. On the other hand, we no doubt find oxen, horses, and sheep, under the influence of domestication and of climate, dividing into fancy species that in certain external features differ pretty decidedly from the general type of their kind, not merely from the growth of fat or of wool having been encouraged, and from particular excessive or rare formations of horns and tail having been produced, but also on account of alterations in the proportions of the skeleton-frame that are propagated if the breed is kept pure. These varieties correspond to the differences of stature which, within the limits of a single race of men, we find occurring and just as often failing to occur in accordance with external conditions. Usually the figure becomes shorter as the cold of the climate increases, yet at the same time the maximum height is found in the temperate zones; tolerably dry and warm plains turn out forms at once stout and strongly built; damp low lands produce limp corpulent figures; the inhabitants of mountainous regions are shorter, square-built, lean; overwork begun during growth keeps down the stature, and on the average the dwellers in

towns are taller and slenderer than those in the country. But to all these rules there are numerous exceptions, and they remind us that external conditions are a highly complex web, the knowledge of which is still in its infancy. Among the lower animals those varieties, however they may have originated, apparently have not the power to maintain themselves after their causes have ceased to act and in a new climate; they relapse by degrees into the more general type of the species.

Experience, on the whole, therefore, is not in favour of any very important modifying power in the external influences with which we are at present acquainted; and in fact attempts have often been made to account for the formation of races by climatic influences in the past unknown to us, but supposed to have acted with greater intensity. There is a certain piling of difficulties one above another in supposing for a phænomenon whose reality is uncertain causes of which we can form no conception. Should it be maintained in evidence that the earth's life was of old more creative and intense than it is now, this somewhat vague idea can quite as easily be made use of on the other side. The more productive the earth was, the more likely is it to have brought into being several types together. Nevertheless, the hypothesis of the original unity of the human race cannot be absolutely disproved, and however forcible may be the analogies on which the aversion to it rests on the part of scientific inquirers, they yet are inadequate to constrain belief in a plurality of primitive types.

Should, however, the idea of a gradual evolution of races by means of external influences be again taken up, though it involves the dependence of an organized type on the inorganic world no less completely than the most thoroughgoing Materialism, we would look on climatic influences merely as subsidiary conditions by which the formative impulse may indeed be carried out of its original course, but can be diverted into a new channel only because it has a natural tendency to enter and remain in the latter. When to one chemical

element is added a greater quantity of a second than is required to produce the lowest stage of combination of the two, the surplus remains at first uncombined. But if it is added to, a point may be reached at which under favourable circumstances this increased quantity of the second element is wholly absorbed by the first, and blends with it in a new and peculiar combination. In like manner one might imagine that the sum of external influences exerts on a fixed organic type modifying effects that for a long time are powerless to prevent the continuous reproduction of this species, and that accordingly give rise merely to subordinate individual or national peculiarities, similar to the varieties among domestic animals which last only so long as their predisposing causes. But were such influences to last longer, a point might be reached at which it becomes easier for the organizing force to maintain itself, if it wholly gives up the original form and passes into another—one, namely, that was equally with itself contained in the general symmetry of the organism, not merely as a potentiality, but as a favoured potentiality—because in it, as in the former, the formative impulses have also been brought into a stable equilibrium capable of constant reproduction. We should then perceive the various possible types as a series possessing different maxima of fixity, of internal harmony, and of organic power of self-preservation. If the organic development of one of these maxima, these select types, is modified by external agencies, it first of all produces fluctuating, variable, uncertain forms constantly gravitating back towards the more fixed type to which they are nearest, when external circumstances permit. If, however, the formative impulse has once been brought by a sum of modifying agencies to the watershed between its own ground and that of its contiguous maximum, it is carried fairly out of itself no longer by the force of external circumstances, but by its own weight, its own accelerated velocity, again seeking a sure equipoise of forces, and forms arise on a new and once more constant type, which, like the other, is a root of the general form-equation. Such a conception would explain the strong

tenacity with which certain leading types, having become independent of external conditions, are everywhere preserved; it would at the same time explain how around these a great number of variable, easily-effaced intermediate forms truly dependent on outside influences are grouped; and lastly, it would indicate the possibility of one of these leading forms arising out of another, without its being necessary to refer the transformation to wholly abnormal and unknown causes. Although the influence of external agents, continued through thousands of years, could not effect such a change in a race whose nature was strongly predisposed to one fixed course of development, it was quite possible for a variety of forms to be produced by this same influence when it lighted upon a formative impulse that, besides many accidental shapes in which it cannot abide, can assume several forms of a like fixed character. But no doubt experience has not yet proved what we are here assuming—namely, that a number of transitional forms when removed from their home are less immutable than the main types from which we supposed them to commence.

§ 3. In any case the variety of actually distinct forms is too great for description here, and in the interest of general anthropology it is not necessary to perform this comprehensive ethnographic task. But, attending merely to the leading types, there seems no reason to depart from the division laid down by Blumenbach into the five main stocks of the Negroes, the American Red Indians, the Malays, the Mongolians, and the Caucasians.

With exception of the inner surfaces of the hands and feet, which remain of a light flesh-colour, the body of a *Negro* child — at birth reddish all over — very soon becomes darkened by a layer of pigment-cells lying below the epidermis. The black, which as it is lighter or deeper in tint partly serves to mark national differences of race, becomes more intense through heat and light, while in age or in a cooler temperature it grows paler; the deepest shade is found not at the equator, but to the north and south of the line. The skin is oily and of velvety softness, unpleasant to

Europeans from a constant and strong-smelling perspiration. The hair jet-black, longish instead of round in transverse section, in early childhood soft but soon growing crisper, clustering in single tufts, is twisted in very small curls, and knotted into a thick woolly texture. The dimensions of the body in many respects recall animal forms. The pelvis, at least among males, is narrower than in the Caucasian race, and the bones are more perpendicular — hence there is less breadth across the hips, and the belly protrudes. The upper arm is shorter, or at any rate not longer, than that of the European, but the long forearm and no less long and narrow hand with long fingers give strikingly the effect of length of arm. The femur also is shorter in proportion to the tibia, the leg is lean, and said often to present very distinctly, by compression of the sides, the form of an animal's leg. A not highly developed calf leads finally to a long flat foot, the whole sole of which touches the ground, without instep, with a broad low heel and small toes, of which the first is more distinctly than among Europeans shorter than the second, and separated from the others by a wider interval. A short muscular neck supports the head, which is flattened at the sides, and rather long from back to front. Joining the low retreating forehead, between the obtusely projecting edges of the eye-sockets, is the flat bridge of the nose, with its round nostrils, high angular cheek-bones, wide prognathous jaws, with rows of teeth meeting one another obliquely, and thick swollen lips. The retreating chin shows very little beard, the ear is small but thick in the lobe, and stands out from the head. A horizontal line touching the opening of the outer auditory passage forms with another joining the most advanced points of the forehead and upper jaw an angle of 70°–75°. In all races this angle is greater for the child than for the adult; in the Negro the facial part of the head is particularly large, and the skull so much the smaller in proportion. Yet the ugly picture formed by the combination of all these brute-like traits is in many tribes redeemed by greater refinement of type. The ebony blacks of Ioloff, the

reddish blacks of Ashantee, the yellowish-black Mandingoes and Fellatahs, whose intellectual capacities are superior, have likewise finer figures and sometimes handsome features; even the broad flattened nose is in some tribes replaced by one high and almost aquiline. The whole race was originally confined to the interior, west, and south of the African continent; it has as neighbours in the south-west the dirty light-brown, stunted, lean, and ugly nation of the Hottentots; in the south-east, the taller, well-grown, bronze-coloured race of the Kaffirs.

The *red* race inhabits the whole of the American continent with the exception of the polar regions. Their colour, which varies between that of moist shoe-leather and the different shades of darker and lighter red-brown, is made darker and more decided by much active bodily exercise. In spite of manifold differences between the several tribes, observers have always dwelt on the uniform impression created by the appearance of all. Their build is in general not very high, but thick-set and square, chest and arms muscular and well-developed, the legs less full and well-shaped. The hands, whose coldness is said to be a characteristic mark found even in European half-breeds, are small, as also the feet; fingers and toes are long and narrow, the great toe somewhat separate from the others; the carriage is erect, the abdomen long and protruding. The head, to which various tribes give an artificial shape by the use of compresses and bandages in childhood, is broad in the middle, the occiput being little developed. The face is large but not flat; from the cheek-bones being very high but not angular, it has its greatest width in that region of the cheeks, which are rounded, full, and undulating; but even in profile the distance from the ear to the contour of the face is considerable. The low retreating forehead, narrowing towards the top, surmounts with projecting bosses wide, deep-set sockets sloping somewhat inwards and downwards; the eyes themselves, with black or brown iris, overarched by rounded eyebrows, have a stern, grave glance that is said to be in contrast with the softer expression of the large mouth. The

nose is more or less curved, often aquiline, or with a break in its outline; the lips are broad, but not thick; the ear dainty and small; the beard, if any, generally very scanty, the hair black, coarse, long, shining, and quite straight. Degenerate as are many of these tribes, their type of structure is yet one that lends itself to æsthetic idealizing far more than that of the Negro.

The *Malay* race presents a less characteristic form. The islands of the Indian and Pacific Oceans are occupied by a mixed population whose descent and connections with the other races are hard to ascertain. Among these tribes has been distinguished that of the Malays, who apparently, leaving their homes in the Philippine and other adjacent islands, have occupied on the continent the peninsula of Malacca. Their complexion is of manifold shades of brown, from chestnut colour to rhubarb-yellow; the luxuriant hair is black, very curly and soft; the form slender and of middling height, but muscular and capable of extraordinary agility; the hands and feet small. The skull is tolerably narrow, the forehead high and arched in a curve, the eyes wide, the nose broad with open nostrils, the mouth large, the upper jaw slightly projecting, the chin pointed, the features of the oblong face strongly marked rather than rounded off.

The yellow *Mongolian* race is spread over a vast extent of territory. It occupies the polar regions of Europe and America, and in Asia extends from the Caspian Sea and the Ural Mountains to Japan and Corea, from the Arctic Ocean to the Himalayas, the Ganges, the Gulf of Bengal. The great variety of climates embraced within this extensive region, and the different stages of civilisation reached by its inhabitants, produce differences as regards even the corporeal characteristics of the race. The most complete representatives of the Mongolian type are the still nomadic pastoral tribes of Central Asia. The bullet-shaped or almost die-shaped skul presents a low, retreating, flat forehead, very high angula cheek-bones, that give the flat face its greatest breadtl between the large prominent ears. The nose is short, broac

and flat, with flattened forehead above it; the narrow-slit eyes, turned slantwise within and downwards, stand far apart from each other, their inner angle is rounded, the lids heavy, eyebrows scanty. The hair, which is not plentiful, is black and straight, the figure of middling height, well-proportioned, the light and wiry frame sparingly covered with flesh. The colour of the skin, light-yellow or brownish among these nomadic hordes, is darker in the polar tribes, who, stunted in frame and endowed with an exceedingly susceptible nervous system, live under the most untoward external conditions. Among the settled and more civilised nations of the race, the Chinese and Japanese, the complexion is fairer, and especially in the women of the higher classes approaches the Caucasian white; features and figure reproduce the race-type more closely, and exhibit its most refined aspect.

It is unnecessary expressly to mention the well-known peculiarities of the *Caucasian* race, its oval-shaped face, its high arched forehead, its vertical profile with compressed lips and rounded chin, and the other proportions of its form. Seeing that this race, as exhibiting the historical development of the human race, will form the main subject of our subsequent inquiries, we shall have occasion to make further mention of the characteristic traits of its several branches.

§ 4. We must allow that but few details of the typical pictures now sketched apply universally to the very various forms which, in the course of time, we find actually developed within one and the same race. We have, not without fanciful additions of dubious authority, but drawn images, such as seemed to us best to combine in a characteristic and complete whole the various peculiarities which we meet with singly in the representatives of a race. We are ignorant whether the æsthetic impression of whose power we are conscious has any physiological significance; whether these expressive sketches contain the productive fundamental type from which the actual forms comprised in a race are but variously directed individual deviations, or whether they do not, on the

contrary, represent only the possible extremes which a type, corresponding at first to a wholly different formula, is capable of realizing, under the most favourable or the most unfavourable conditions How, then, the numerous half-way forms that do not fall entirely under any of our sketches are to be made to fit with the forms, which of them are to be viewed as crosses between different races, which as climatic transformations—the answer to these questions we must leave to comparative ethnography, and probably to a distant future. Our actual observations do not reach far enough back to enable us confidently to estimate the influence even of climate; we do indeed frequently meet with tribes whose present characteristics seem to be more or less thoroughly in harmony with the climatic conditions of their abodes; but then we do not know the previous condition which, we should have to assume, has by means of accommodation to these conditions been converted into the present one; and, in the few cases where we have historical evidence of the migrations of otherwise known races, we have no certainty that a mixing of different types — under such circumstances probable—has not been one of the causes of the change.

We seem to have in the common approximation among the descendants of the most heterogeneous settlers in North America to a peculiar type one instance of the powerful effect of climatic conditions; yet we are at a loss how to analyze it; and even this effect does not come near the limit to overpass which might give us reason to suppose that a new race had been established. Our information is not more trustworthy as regards the results of crossing. Only within the same race is the individual constitution of the parent on one side sometimes almost exclusively transmitted to the children; the first crossing between different types always produces an intermediate form, that is, a compromise between the corporeal dissimilarities of the parents. In regard to these half-breeds we know that repeated marriages between them and the white race frequently give rise to forms of

great beauty and also of good mental endowments; but it remains doubtful whether marriage exclusively among themselves would go on being fertile indefinitely.

Reference to these relations leads us to another point of view, usually occupied at once in an examination of the variety of human types. For it is quite common to preface such reflections with the statement, that it is above all necessary to define as accurately as possible the notion of a *natural kind* or *species* and an *artificial kind* or *variety*. Arguments are brought forward on behalf of the proposition, that all the races of men are but *varieties* of one *species*, not *species* of one *genus*. I have not hitherto made use of these terms as if they contained a decisive motive for the adoption of our views, and in fact I believe that a detailed introduction and discussion of them is only fitted to bury the real import of the question at issue under a logical play upon words. It is obviously a matter of no importance whether we choose one or another name for the distinctions of human races; but we seek an answer to the question, whether they can all have actually sprung from one and the same primitive stock by generation and climatic influences. This possibility is supposed to be established when they are assumed to be mere varieties of one species; they then have a common law of formation that exhibits itself in various forms only by means of various determinations of particular magnitudes in it left indefinite. Our ignorance of the laws of formation, however, does not allow of our directly proving this essential identity in type of all races, or even their identity to such an extent that all distinctions may be put down to external influences. We therefore look about for an outward mark by which to assure ourselves of this, and think we have found it in the fact that intermarriages between individuals of different races of men are fruitful, and that their offspring are further capable of propagation. It cannot be denied that this mark is of importance; for, if Nature is minded to keep up barriers between the several kinds of her creatures, there must somewhere be a difference in moulding impulses that excludes the

production of intermediate forms. Certainly, then, according to this evidence of experience, men belong to one group throughout which an essentially identical formative impulse prevails. But I know not what we gain by translating this fact into the proposition that the races of men are but varieties of one species. *Variety* as applied to them is an empty name. If it means merely that they can be propagated after crossing —this they have always done and continue to do without waiting to be authorized by this logical title; we for our part have long known the fact in so far as it really is one—so far as it is not guaranteed by experience, we shall not believe it more firmly on account of this title. For what is there to hinder our supposing that the external influences by which different varieties were evolved from a common stock, may sometimes produce differences that prevent their continued fertile crossing, that thus there are actual varieties of the same species without that mark on account of which we are willing to grant only this extent of difference between the races of men? The unfruitfulness of many marriages within the same race, while after their dissolution both parties are capable of propagation with other individuals, points to such a possibility. But if the term *variety* is also intended to imply that the races have been evolved from a common primitive stock by means of external influences, what is there to justify this superfluity of assertion? That two creatures can together produce a third, is no proof that they must have been both derived from a fourth. The above-mentioned crossing is of *two* organic formative impulses; that the offspring of this combination are capable of life and propagation, is no guarantee that from *one* impulse to organic formation, simply through the agency of external conditions, different types can be derived; or more briefly, that it is possible to fuse such organic differences proves nothing as to the possibility of their diverging from a *third*. On the contrary, it may very well be that the actual races of men are so far homogeneous as to allow of hybrids, while yet any common type from which they could have sprung is a physical impossibility.

In this case *species* and *variety* would be nothing more than names for the degree of affinity between the existing forms, having no certain significance whatever in regard to the mode of their origination. These notions, and all attempts at an accurate definition of them, therefore decide nothing; the one real object of investigation to which these logical prolixities must always be steadily brought back, consists in the problem, not merely vaguely to conjecture, but to name external conditions through which one race-form can be proved historically and if possible experimentally to have been converted into another. Of course we are not unreasonable enough to require literally this extreme degree of palpable evidence; should physiological researches be carried so far as to give us a more accurate acquaintance with the mechanism of propagation and the physical processes through which the constitution of the parents and additional external circumstances mould the form of future generations, then perhaps this experimental proof might be replaced by a physical theory; but to embellish the question with technical terms of logic yields no prospect of success.

Worst of all, finally, would it be if practically also intercourse between the different races were to be regulated not by the actual facts for which we have the evidence of our senses, but by logical conjectures concerning them. Supposing it could be proved by irrefragable evidence that the ancestors of the Negroes were really true undoubted apes, but at the same time the fact remained that the present Negroes walk erect, speak, think, and in general possess the degree of intelligence (be it great or small) which we know from experience they do—what moral excuse would there be for the cruelty of accommodating the treatment of them not to what they are, but to what their ancestors were, or—to speak logically—to the kind or species to which by their descent they belong? Or were it, on the other hand, established that monkeys are degenerate human beings, whose forefathers we perhaps meet in human form in the history of past times, would not the fact remain that now they are nothing else than

veritable apes? Assuredly in this case we might yield to a genuinely human feeling of piety, and not treat them like other beasts of the chase (a reluctance this which, even without such grounds of reflection, the mere impression of their likeness to men creates in the mind of many a rude hunter); but no one would on account of what their forefathers had been, or of the natural species to which they belonged, overlook their present condition and attempt to put them on a footing of social equality with ourselves. How hard it is for our time, "sicklied o'er with the pale cast of thought," to keep to the definite form of a question under discussion, and how strong is the temptation to adjust even moral relations according to, not the calls of the matter as it actually is, but the most uncertain conjectures as to how it could have come to be what it is!

§ 5. As yet our inquiries have been concerned solely with the corporeal constitution of living beings. We have seen how the peculiar character of the globe, which forms the scene of all life accessible to our experience, with its material substances, its forces, its succession of events and of external conditions of life, tends to produce certain universal types, by which the variety of races must be limited, so that within these limits it may fall into the order of a highly complex series of kindred forms. In all these forms we have recognised, besides the universal physical laws that regulate the mutual relations of the elements, the inner nature of these elements as a co-operant force. It seemed to be the natural procedure next to bring into prominence this side of our inquiry, and to portray the mental life that stirs in each of these shapes, partly finding in them the conditions of its manifestation, partly reacting on them so as to influence their type: thus exhibiting the classified series of kinds of a realm of intelligence answering to the corporeal classification. But not only is the inner life of animals so difficult of access to us that such an attempt could but have resulted in doubtful outlines—we would also have met with an obstacle in the many doubts that would have beset us as to whether we were

justified in applying the scheme of a systematic arrangement to the world of mind. Perhaps the separate examination of mental life to which we now proceed will lead to different views from those which here at first seemed to present themselves.

The origin of races, of the human race in general, nay, of the whole animate world, has since this book first appeared become the subject of the most zealous researches, of the most audacious assertions, and of the most discordant opinions. I have been reproached by well-wishers for not having more distinctly indicated the position which I mean to take up in view of so energetic a movement of opinion. And, in offering once more the preceding section without material alteration, I seem to have neglected the last opportunity of making up for this deficiency. But, within the limits which I had assigned to my work, and which I could not exceed without relinquishing my special aim, there was no room for the multitude of highly interesting and more or less certainly established facts for which recent research, led by Darwin, claims and wins grateful attention; and as regards the theory that has linked itself to these, I did not consider myself bound, on occasion of this most recent current of thought, to bring that into special prominence again, after I had, as I believed, before this occasion was presented, with sufficient explicitness stated the convictions with which I would meet the claims of these not new but very old ideas. And in fact I know not now what I could add concerning this matter to the discussions of the chapter just closed and to the final reflections of Book III., in which some time before the appearance of Darwin's work I considered the rise of adapted forms out of chaos by those very means which have since under the names of *variation* and *selection of existing varieties through the struggle for existence* become popular topics of the day. As respects the historical processes through which the whole animate world and mankind have come into being, I then left the decision to scientific inquirers, honestly ready to accept all that should be established by observation, and not merely

asserted in accordance with preconceived opinions. For I adhered to the conviction which I have emphatically expressed on p. 374, that the contemplation of the whole series of graded periods during which formless matter may have been undergoing processes of formation would but add to the splendour and variety of scenes in whose outward pomp our admiring phantasy might revel, but would not explain the wondrous drama as a whole more adequately than that modest belief which sees nothing but the immediate creative will of God from which the races of living beings can have been derived; whatever mode of creation God may have chosen, none avails to loosen the dependence of the universe on Him, none to bind it more closely to Him. Now among those who at first trod confidently the path of explaining all by Chance, many have been led by honest reflection to change their views; they believe that at least in the heart of things, and as a continuous thread running throughout them, they must admit a rational principle of selection and an inherent effort after ends. But why must I expressly call attention to the fact that in our own day had occurred an example of that revolution of thought which on general grounds I had already shown to be necessary? Should things go so far as a relinquishment even of the obstinacy that marks the present eagerness to transfer to blind existence every germ of intelligence and design, and to dismiss from the universe all that might be suspected of being mind, I would have still less inducement to tread again the labyrinthine path of these incidents of the day, a path along which I could only win back an old truth by turning away from mistaken points of view.

# BOOK V.

## MIND.

# CHAPTER I.

## MIND AND SOUL.[1]

The Animal Soul and the Rational Mind—Reciprocal Relation between the two—Abolition of this Duality—The General Concept of Soul and the Individual Soul—*Soul* a Phænomenologic Designation of Heterogeneous Subjects—Transference of this Designation to Homogeneous Subjects—Original Nature and Development of the Soul—What is meant by *Nature of the Soul?*—Can we regard as the Original Content of any Nature the Idea of its Development?—The Reality of the Idea and the Unreality of Simple Quality—Unity of the Idea—General Attributes of Souls—The Realm of Souls and its Members.

§ 1. OF the many marvels that the earth contains none is more marvellous than man. In fact, we feel tempted to repeat that old song in which Sophocles, with the freshness of a thought that had not yet become habitual, recounts the astonishing results of human culture. We look out into Nature, and everywhere we see that defenceless man has quietly begun to wage war with its terrors, coming to grief indeed in individual cases, but victorious on the whole; by his craft he has overcome far superior strength in the animal world, subdued some of the brutes into unwilling obedience, improved the capacities of others to his own advantage, trained many to devoted fidelity and affection. And is more than a word needed to indicate, by recalling all the blessings of social life, the impassable gulf that divides him from the rest of the animate world? Where now lies the germ of this greatness? Is it possible to name any preponderantly important power, any definite faculty added to human nature, by means of which its development is carried

[1] "We meet with the word 'soul' (*Seele*) in the languages of all civilised peoples; and this proves that the imagination of men must have had reasons of weight for its supposition that there is an existence of some special nature underlying the phænomena of the inner life as their subject or cause."—*Lotze, Metaphysic*, Bk. iii. ch. 1, § 238, p. 420 (Clarendon Press Translation). Cf. *supra*, p. 144.

far beyond the limits of animal activity? Or, if in man capacities common to the lower animals are only carried further, can we point to any circumstances that explain this sudden advance, announced by no preparatory and instrumental intermediate stages? Or, lastly, are we mistaken here, and do the various conditions of human life really form a series of progressive stages of development that lead uninterruptedly from the torpor of animal life to the summit of human culture? So different are the several parts of the great picture before which we stand, that we are successively tempted to answer each one of these questions in the affirmative, according as it was this or that feature of the great whole on which our glance first fell, and by which it was held captive.

A comparison of the highest point of our culture with the scarce intelligible and fragmentary utterances in which around us the psychic life of the lower animals finds vent, shows the interval between the two spheres of existence to be so vast, that apparently the addition of a wholly new germ of development is absolutely necessary to explain the superiority of human culture. And so, according to a conception current already in antiquity, over against the sentient *soul* shared by man with the lower animals, stands the rational *mind* as the higher power bestowed exclusively on the human race that gives a higher direction to the stirring vitality of sentient feeling and effort. And yet it is but as a name that this term *mind* is free from suspicion; it may embrace the unknown peculiarities by which in its results human development rises above every other form of earthly existence, but it does little to render clearer the causes of these results. For we cannot return to the *naiveté* of conception that sees in psychic life and mind two different and separable entities—the former perhaps mere mortal breath passing away with the outward form, the living mind alone enduring beyond the term of this earthly life and set to higher tasks.

But it is not so much the apparent rending asunder of what must be one that seems to us inadmissible; however, indis-

tinctly the mutual relation between mind and soul may often have been conceived, that does not in itself render impossible a definite view. For, of course, we should seek exclusively in the living mind the unity of our being, our true self; in contrast to it the soul would take its place in the series of elements, various in themselves, which are set at its disposal by the plan of organization. The series would but have added to it a prominent member, which either from the superiority of its own nature or from the advantageous character of its position surpassed all the other elements in internal activity, collected their excitations within itself, transferred them to the mind, the principle of unity, thence in return received behests, in order by its own intelligence to prepare for their being performed by the corporeal organs. A twofold life would then be going on within the material form. For as the animal's soul unquestionably concentrates the multitude of impressions in the unity of consciousness, feels pain and pleasure in respect of them, and uses them as starting-points for future action, so our soul, too, would have its ideas, remembrances, feelings, and efforts apart from the mind which it serves, and its consciousness would not be ours. Many manifestations of what we are wont to call our life would go forth from this living element within us without our knowledge or our will; of others the mind would be cognizant, the reciprocal action between it and the soul conveying to its consciousness also the impressions filling that of the latter, without, however, calling forth in it anything more than toleration—anything such as a resolve leading to independent action. But then there would be cases in which the soul's energy, itself stimulated by exciting causes from without to display its powers, roused the mind to vital reaction, and now at last this hidden spring would be disclosed, and in virtue of universal laws, under whose control even this intercourse must be carried on, the higher nature of the mind would on the one hand unfold its own inner life, on the other exert a modifying, guiding, and directing influence on the action of the soul, and through it on that of the body.

Thus is brought before us the image of a close and not unfruitful connection of two beings that in distinct separation from one another carry on the mechanical action of psychical reciprocity. The soul, familiar with the countless mutual relations of the organic forms from which it received stimulations, would transmit to the mind, perhaps not all these impressions one by one, but certainly the total frame of feeling that in itself they combine to form, and would thereby secure for the higher activity a steady or shifting background of peculiar vital feeling. Particular constituents of this mood, like figures in clear outline, would then stand out in contrast to its uniform colouring; the intuitions of space and the manifold affinities and antagonisms of the sensations after having been arranged by the soul (for of this even the lower animals are capable) would come before the mind, to receive from it that anticipatory æsthetic estimation of their value which seems to lie without the province of the sentient soul. At last stirred to the depths of its being, the mind itself, without knowledge of the outer world, would be tossed hither and thither in vague swellings of its phantasy; but the unutterable impulses of its higher nature tell upon the activity of the sentient soul, which in obedience to this command excites innumerable movements in the bodily organization that is akin to itself, the result of which is to set distinctly realized before the mind the previously indistinct and vague enigma of its longing. When at last this connection is dissolved, the evanescent soul has long since deposited what has been won from life and experience in the living mind, which now, keeping hold of what it could not by itself have acquired, may enter on a new phase of existence.

That the difficulties are not insurmountable which stand in the way of a distinct conception of the mechanism of a relation between soul and mind, is sufficiently indicated by these remarks; with much less clearness and but in vague terms have we been able to touch on the division of labour between these two immaterial beings and the contributions

made by each of them to the total of our life. For we have still to make a more detailed examination of the characteristics that raise human culture above animal life; we are dissuaded from an attempt to anticipate its result here by the mistrust with which we cannot help regarding this strange and somewhat harsh picture of the union of two powers that like a double star are said to control the motions of our one life. Did we, without reference to the animal kingdom, begin our inquiries with the development of man, evidently the sentient soul would drop out of our conception as a superfluous item. For with no more effort than it can cost the soul to concentrate the vibrations of innumerable corporeal elements within itself to the unity of a consciousness, a feeling, an impulse, or on the other hand to give to the effort developed in the mind by the elaboration of these inner states effective expression by movements of those elements, would the mind itself directly perform the same operations in concert with the constituents of the body. And again, all the difficulties which might seem to any one to be involved in such a direct mutual communication between mind and matter, return with undiminished force in that other reciprocal action between soul and body which would take its place. Here, as so often is the effect of inserting an apparently explanatory middle term, the problem, instead of being solved, would only have been made more complicated. Obviously this sundering of two supersensible powers has nothing to recommend it but the remembrance of the animal world, of the lower sphere of psychic life which it shares with us, of the higher that is denied to it. But this fact, the weight of which we unhesitatingly grant, perhaps admits of other explanations.

§ 2. In reality, hardly any one can be disposed to set mind and soul over against one another so literally as we did; the habits of modern thought are contrary to such decided separations with their obnoxious clearness. Most will prefer, with a view the real meaning of which it is harder to arrive at, to think of the two as different stages, different phases or powers of the same supersensible being, or to derive the pre-eminence

of the mind from a higher faculty, perhaps from reason which, granted to it, is denied to the sentient soul. As we do not understand what is exactly meant by *stages* and *phases*, we must pass by these opinions without remark; the last, however, admits of being improved, and leads back to a practicable path. For, in whatever reason may consist, it is clear that the soul cannot receive the gift of a new faculty additional to its nature, unless it be so grounded in its constitution that it either must of necessity be evolved from it, or else might be evolved should favourable conditions supervene. The nature of a thing admits of no appendages; if one thing seems to possess a capacity which others like it lack, they cannot have been really like it, but that side of its nature to which the capacity attaches itself must secretly have been different from any part of the kindred beings to which this addition is wanting. Instead of looking in man for an animal soul into which as a wild stock of inferior nature a distinctive higher shoot has been engrafted, we ought rather from the first to see in the living human mind a peculiar being, whose characteristic nature is at work even in the simplest and lowest manifestations of its activity, though its full significance and the interval by which it is separated from the animal soul appears most distinctly in the final results of its development.

Universal concepts are the two-edged weapon through which alone it becomes possible for our human thought to lay bare the strong core of native force and energy in the most complicated involution of phænomena, and yet by applying which we so often unwittingly injure the vital impulse that we fain would spare. When, in the process of comparing a complex datum, we first of all collect the similar constituents into small groups, then unite the divergent characteristics of these several groups under higher comprehensive categories, finally, proceeding further, arrange the whole mass of details in a systematic series of superordinate and subordinate concepts; then we fancy that the upward and downward course of our thought on this scale is an imitation of the internal relations of dependence of the things that we meet with on its stages.

The most general, highest, and consequently least determinate notion in such a series, seems to us like the rough block of marble from whose solid basis of material, conditions subsequently added shape definite forms; and in the scale in which our thoughts systematically run through the various genera and species, we think we can see the more general distinctions of the higher classes emerging first from this real core of matter, gradually to pass into the separate forms of individual existence through the constantly renewed influence of more and more specific conditions. Or if we do not directly attribute to the arrangement of our classifications the significance of a historic genesis of their stages out of one another, at least we believe that in them is reflected faithfully and accurately the greater or less extent of a direct or indirect dependence subsisting between the different properties of the individual being and between them and a common nucleus to which they adhere. We see that many objects of perception agree in being centres of exeunt and ineunt effects, in being acted on and emitting energy, and in remaining as fixed points amidst the vortex of events; on account of this character it is that we give to them the name of *things*. But we soon forget that this name was but a mark intended to indicate the presence amid variety of a common form of being and acting; we unconsciously convert it into the designation of an originally everywhere homogeneous content which constitutes the true essence, and from which by means of subsequently added conditions is elaborated the variety of forms with which we are confronted in experience. The untrained thinker calls whatever possesses the appearance of independent existence and of capacity for acting and being acted on a *thing*, and deems it possible that beings of widely different natures may share in this kind of existence; just as he calls all that he sees to be pernicious to organic life *poison*, however various may be the substances that display this perniciousness. This natural conception is first troubled by initiation into philosophic reflection, at least where the simplicity of the objects dealt with does not by itself show

how error may be avoided. For certainly when we speak of misfortunes no one will imagine that first the misfortune itself happens, and then each particular annoying effect is evolved from it by subsequent specializing determinations. Where, on the other hand, we have to do with the various phænomena of Nature that present we know not whence the properties of materiality, impenetrability, etc., it seems to us self-evident that this common kind of demeanour is to be interpreted as a common content, a universal matter, a fragment of which residing in each body is by particular additional conditions developed into the specific qualities of the several elements. When, further, we speak more generally of those modes, common to all things, to which we have above referred, we are apt to enter upon the fatal search for a substance that is nothing but substance, for a universal matter out of which things are made, and a morsel of which residing in each several thing secures to it as a preliminary the universal attribute of independent existence, of passivity and activity, till subsequently special circumstances supervene and determine *what* it is to be and *how* it is to act and be acted on. Thus the universal notions with which as with official titles we designated the similar powers of beings otherwise undefined and perhaps very different, have come to have quite an opposite meaning; just as if we were to assert that the general notion of master and slave is the preceding reality from which the particular persons bearing these names with all their individual qualities are derived in consequence of subsequently added conditions.

Psychology also has felt the influence of this change of notions. The comparative study of mental life showed in different beings everywhere homogeneous modes of manifestation — sensation and thought, feeling and volition — and everywhere similar laws and customs regulating the mutual connection and reciprocal action of these manifestations. On account of this common character the unknown subjects of these shifting phænomena were designated by a common name; whatever else they might be, they were to be called

*souls*, in so far as they all alike invested their inner states with these peculiar forms; for the rest, the original content which the individual beings sought to express in this common language might be very different, nay, such as hardly admitted of comparison one with the other. But insensibly the word came to be used in exactly the opposite sense; the name for the similar behaviour of the essentially different became the name for an identical inner being to which the variety was to be attached as an external appendage. Above all, the true and essential nature of the subject of the inner phænomena was supposed to lie in its being a soul, in its being capable of sensation, feeling, will; but what were its sensations, how it felt and willed, that depended on other conditions, that might be put down to the bodily organization, or to the peculiar character of external circumstances, or to a subsequently added endowment; in one of these ways alone could henceforth the homogeneous psychic element in all living beings reach once more the variety of development presented to us in experience.

Conceptions of this sort, very variously modified, have come to be in vogue among us. In the conflict against Materialism, *psychic substance* has not seldom been spoken of in a way that pretty distinctly betrayed a tendency to oppose to universal matter, as the substance out of which *things* are made, another substance from which *souls* may be made. The point of chief importance seemed to be to secure a firm and durable nucleus that, set in the midst of the inner phænomena, should be there for them to adhere to; all that was needed was that this nucleus should be of a different nature from the substratum of the material world; however devoid of content it might otherwise be, the distinctive qualities of individual souls, it was hoped, could be derived from it no less than the particular elements of Nature from universal matter. This was to overlook that the latter attempt can but apparently succeed, and that it has the appearance of possibility because there is nothing to forbid our reducing the differences of the material elements to various combinations of atoms — sup-

posing only that we resolved to treat those elements, not as simple, but as compound, and supposing further we knew of reasons for the persistency with which these various combinations of the in itself identical substance endure as unalterable foundations of Nature without passing into one another. The necessary simplicity of the soul puts such an attempt out of the question. Neither from condensation and rarefaction, nor from various collocations of the elements of a universal psychic substance, can we explain the difference of souls; either they must be exactly alike, and the difference in the levels of development which they can reach proceeds solely from the influence of circumstances, or else they are originally unlike, and along with the common characteristic of employing homogeneous modes of manifestation there must be an unlimited diversity of content which they express in these modes. We find ever giving way this perverse conception of an indefinite substance that pre-exists as a general coalescent condensing into durable existence the subsequently arising content, whatever it may be; we must go back to the acknowledgment that it is no other than the living content itself that by its own specific nature directly acquires the capacity to act and be acted on, the attribute of substantiality, and that then imposes on the unwary thinker the illusion of this form of existence being due, not to itself, but to a core of universal substance inherent in it.

In somewhat different terms must we bring a charge on the whole similar against that theory which essays to construct the manifold inner life from the mutual actions and reactions of ideas as simple efforts at self-preservation on the part of the soul against threatened disturbances. Here there was no presupposition of a universal psychic substance, no fashioning of individual souls out of it; a quality to us unknown, but definite and simple, was looked on as the content forming the nature of each being, and from the first an infinite variety of these qualities, with an equally great original difference between beings, was admitted; those were finally classed under the category of souls whose efforts at

self-preservation wear the form of ideation or sensation. But as this theory sought to evolve all the higher and more complex operations of intelligence from the continued reciprocal action of sensations alone, without allowing any other renewed co-operation of the nature of the soul besides that which results from the purely formal aspect of its unity, it virtually came back to the point of view which we have already found inadequate. For this, too, again set up the notion of the ideating being as that of the material whence solely through the agency of added external conditions, which allow of a greater or less complexity of internal reciprocal actions between the operative elements, arise the distinctive characteristics of different souls, human as well as animal. Of course there is no objection to the hypothesis that those first manifestations of self-preserving activity, the simple sensations, turn out different according to the original diversity of nature in souls; hence much may appear different to animals and to us; but the mechanical laws, according to which the further elaboration of these elements among themselves takes place, are expressly and doubtless rightly stated to be absolutely the same in all beings. On this view, therefore, there remains no adequate inner source of the variety in mental development; for assuredly no one would dream that, whether a soul reacted to the stimulus of waves of light by the seeing of colours or by some other kind of sensation, this and the like formed such a source.

On the opposite side we have already expressed our conviction how impossible it is to explain all the forms of activity embraced within the life of one soul from the mechanical reciprocal actions of ideas; how essential it is, on the other hand, to conceive the soul as constantly interposing anew in these operations, interposing, too, with capacities for activity that found no occasion for prominent action in the production of simple ideas, but held back, to be gradually called forth by the relations that unfold themselves between the variously meeting ideas as by stimuli of a higher order. A far greater depth of peculiar content, it seemed to us, was latent in the

soul than merely the bare capacity to maintain itself by sensations; each momentary aspect of the course of thought appeared to us to have two results; the one to be foreseen, and in virtue of the mechanical laws of the inner life alike in every soul; the other not to be foreseen, and proceeding from the further effect of the first result itself on the peculiar character of this same soul. Absolutely the same, then, as may be the mechanical laws of the course of inner phænomena for all beings, yet the result, the level, and the special colouring of the mental development depend, not only on the greater or less breadth and variety of this common mechanical current, but on some original difference in the soil through which it flows, on the diverse natures of the souls on which it is always reacting, and against which its waves dash. Thus we might satisfy our craving to think of the highest and most original results that the soul reaches in its development as grounded on what is deepest and most original in its nature, without having to give up the advantages held out, at least to future science, by the conviction of a mechanical order in mental life.

These considerations, further, thus lead back to a mode of conception to which in other cases the natural understanding is favourably disposed; it is only in this question that, from being contrary to its habit occupied with objects that cannot be intuited, it becomes involved in baseless doubts. Nobody imagines that the stock is alike in all plants, and that it is circumstances alone that develop in it the variety of vegetation in leaf and flower and fruit; we know that every peculiar detail of the subsequent formation is predetermined in the germinal cell, and that all resemblances in the later development are but similar modes of expression, a common tongue, in which the originally diverse natures of plants unfold and utter themselves. We must not, of course, carry the simile too far; it ministers to distinctness alone, but is not sufficient for proof. For no doubt the primitive cell itself is a combination of diverse elements, and the special mode in which parts are grouped that are again, it may be, common alike to all plants, is the sufficient cause of the special formative impulse

of each plant in particular. And at this point, as already observed, our conception of the nature of the soul, whose indivisible unity we have to uphold, necessarily parts from this simile.

§ 3. But in order to remove a palpable confusion, we would fain here append some further remarks as to the mode in which this conception is to be framed, to a train of thought that on a former occasion (*supra*, pp. 183 seq.) we had no inducement to pursue thus far.

The question what any particular object is, is always answered by us in the first place by a description which further reflection, however, very soon shows to contain mere indications of what the object does or undergoes, not of what it is. All the sensible properties which we assign to it are modes of its behaviour in the case of reciprocal action with other objects; nay, all the supersensible attributes by which we later try to define the nature of things, when examined more closely, invariably transform themselves into propositions as to what they do under certain conditions, or as to events that take place between them. However clear any theory may make the whole tissue of these mutual relations between things, they themselves, the fixed points which enter into this network, or from which its threads proceed, remain wholly unknown as to what they are in themselves. Although in the preceding passage to which we have referred we were forced to acknowledge that the nature of the soul, as it is prior to all development by means of external influences, eludes our knowledge, we at the same time expressed our belief that our knowledge does not in consequence suffer much loss. For it seemed to us that in what the soul becomes in the course of its development lies its essential content, with which alone we are concerned. In the still-repeated desire to know it as it is in itself, we saw rather curiosity as to how anything can come to exist which, while capable of acting and being acted on, sends forth from itself the content of mental development, essentially unknown to us. In fact, we could not have looked for a clearer comprehension of the

soul's essential nature from a revelation of what it is before this life; only here, as in the case of every work of art whose significance consists wholly in its form, and can be fully gathered by us from that form, we have also a secondary interest in knowing the material of which it is formed, and through which it becomes possible that these beautiful and expressive lines traverse space distinct and durable and recognisable by us. The question, then, as to how existence and action come to be, we pronounced absurd; the desire, on the other hand, to know what the soul is apart from its development, appeared to us superfluous; on both points we have now closely connected supplementary reflections to offer.

First of all, as regards the second point, no insight into what the soul performs in its development would wholly satisfy us unless we had some guarantee that in the part of its development which we know, the whole depth of its being is displayed. But the soul does not grow into a visible clearly-outlined form like the plant, of which we know that all the impulses and shaping force latent in its germ live their life fully, in the period between the first sprouting and the ripening of the new seed, in the familiar forms of a vegetation alike for countless individuals. There is nothing in our intelligent existence answering to the definite structure of our bodily frame: we have not a set and fixed complement of ideas, of emotions, of springs of action, as our body has its appropriate number of limbs. Among the several elements of our inner life there is no cycle of functions such as we find pre-established among the organs of the body. Or—if we allow that there is anything of the kind—still our inner life does not consist in that; but in the music which first results when such preconcerted chords, awakened from without, group themselves into a melody which is incomprehensible in variety, incalculable in composition, and never in two different minds alike. Nay, not even a melody affords a correct image of this life; for even the changes of key and measure within the preadjusted scale are forced upon the soul by the extraneous provocations to which the course of

the world subjects it. All these shocks must be worked up into the composition it is evolving, and so—as the soul is thereby often driven to many a startling turn or unforeseen variation—its own true and proper nature, what its own self intends, consists not directly in this audible melody, but in what is inaudible and restricted to no set intervals, in the form, magnitude, and specific character of the elasticity whereby it appropriates what is foreign to it, and makes it a means to its own expression. It would be difficult to apprehend this abstract character even if we had before us the complete series of tones in which it gradually expresses itself to the full. But how, if we have to admit that the series of exciting causes capable of calling forth response and further development from the soul is endless—that myriad hindrances may check the development of germs contained within it—that even in this life we are often surprised by the novel character of reactions which we find consequent on impressions scarcely to be called essentially new—nay more, that in other forms of existence, which the inherent meaning of earthly development leads us to anticipate, new capacities as yet undreamed of may find their development? For the moment it matters not how far we are right in giving admission to each one of these doubts; enough that an actually felt mistrust keeps us from thinking the nature of the germ of mental life as exhausted in the actual course of its development. This development we therefore believe we cannot fully comprehend unless we find, in what the soul is in itself, the regulative creative formula from which we may learn, by supplementing what experience cannot show us, to make intelligible and connected even that fragment of experience which lies open to our observation. This craving it is that carries us ever back to the question concerning what the soul is in itself—but in different wise from before. What we are now in search of is not a universal nature of the soul, whence proceed the various individual souls, but the Idea within each soul that expands into the variety of manifold activities, as into its natural results.

We are not therefore now asking whether we shall succeed in finding and expressing this quickening and productive Idea of anything; but we find it interesting to consider whether this form of an Idea is an admissible mode of apprehending that in which we seek the essence of a thing. In two directions its fitness might seem doubtful. For, first, an Idea seems not to have body enough to form a fixed steady something from which effects may proceed; and again, it seems not to possess that stamp of unity indispensable to the essence of whatever really exists.

The first doubt brings us back again to the point towards which some of our preceding remarks were directed—the tendency to suppose a psychic substance as existing previous to the actual soul. But whereas, before, that substance was to be the universal psychic nature whence flow the special characteristics of souls, now it is sought as the reality that supports the phænomena of individual life as their fixed subject. We are familiar with the inclination of ordinary thought, which in every phænomenon that, amid its changefulness, yields glimpses of a steadfast law, seeks an obscure core of unfathomable reality as the cause of this consistency. We do not suppose that what we actually understand can have a full and true reality; not till we come to a remainder which we have no hope of making clear to ourselves do we think we have found the truly existent, the thing as opposed to thought, and to it absolutely incomprehensible, in short the *real*. We fancy we have insight only into the composite; as our thinking penetrates into the joinings of the combination of reality, we learn by this analysis to understand the properties that depend exclusively on the nature of this combination. But while we thus lay bare the compound, the real itself, that forms the matter of the combination, our thinking does not resolve, at most it breaks it up; suspended like a chemical substance in a fluid medium in which it is not soluble, these simple, proper nuclei of reality float in our connecting thought, no better known than before. And this itself is to us a guarantee that they are something truly existent. Were they soluble

by thought, could what they are be fully expressed in thoughts, they would have become mere thoughts, and would be no longer things. Should we suppose that what they are resembles a quality, then the quality must be the quality of something; should we call their essence a power, that were to assume a subject by which it is exercised; should it be to us an Idea, there must be some one who has or thinks the Idea. In short, represent the essence of things as we will in thought, the representation is never more than a mere image of the thing; there still is lacking the fixed, insoluble core of reality by which, or in which, or round which, or proceeding from which, the several significant details of the image may be condensed into permanent existence.

Thus we come at last to seek within ourselves an inexpressible, insoluble, real something, and to bring the clear fulness of known mental life into a relation of dependence to it never to be made clear. In fact, this perverted way of thinking can maintain itself only so long as we do not attempt more precisely to define that dependence, but are satisfied with the crude image of a subject to which the manifold content of existence is attached externally. As soon as we see clearly that to have a property is a direct proof of the existence of that which has it—moreover, that two beings always distinct in their attributes must of necessity be diverse in what they are—thus that the privilege of being a *thing*, a *real*, does not belong to one content everywhere the same, but that the different and the manifold are real: we recognise that reality, as a particular mode of existence, is the earlier notion that must come first in our thinking, and that the name of the Real is to be given to every content to which this mode of existence is proper, on grounds of whatsoever nature, and whether such as our research can discover or not. But the converse does not hold, that things have reality in so far as they contain something real. By their content alone are things *what* they are; through the fact that this content is capable of acting and being acted on, and of forming the abiding element in a changeful series of phænomena, things

*are*, and can be, as real, distinguished from their image; but how it comes about that this content is endowed with an actual existence capable of passivity and activity, is that foolish inquiry as to the machinery of existence which we have already more than once dismissed from consideration. This alone we know, that we gain nothing by the whimsical attempt first to provide a universal basis of actual existence, a real, and then from it to hand over actual existence in fee to whatever will adhere to it; that, on the contrary, we must regard existence as a precipitate whose genesis never can be understood, and which falls directly, without any interposing medium, on that which forms the content of the existent. If in the meanwhile we assume (more will have to be said about it) that this content is not made wholly incomprehensible by having a nature utterly alien to *thought*, but that, in contrast to such unanalyzable reality, it deserves the name of the ideal, we can state the result of our discussion in these terms—the real is nothing else than the Idea, embodied in a manner incomprehensible by us, in the form of efficacious substantiality.

This opinion differs from another, equally hostile to the cult of fixed nuclei of reality, which we hear frequently expressed. After having got rid of this most palpable error, we are apt to run into enthusiasm for an equally impossible opposite pole, and to hold that the essence of things is pure unceasing activity itself, unsupported by a something different from itself whence it proceeds. It is obvious that this language cannot be meant to convey the idea suggested by it at first hearing. We cannot make *mind* equivalent to the infinitive *to think*, but feel that it must be *that which thinks*; the essence of things cannot be either existence or activity, it must be that which exists and that which acts. The substantive designated by these participles has to be correctly defined, but nothing is gained by its being denied, and in its place the infinitive put which cannot fill the place.

It is always a very doubtful undertaking to try indirectly to confute an error, the inconceivability of which must be

directly evident. I feel this embarrassment in the first step of the attempt, which yet I am resolved to make, to show the absurdity of placing the essence of things in mere working, the essence of the soul in mere thinking or acting. For when I ask myself whether the *notion* of a subjectless thinking or acting conveys anything that can be apprehended as the content of independent actual existence, I am but too distinctly aware that the meaning these *notions* themselves are said to have cannot really be thought; thinking *means* nothing, if it is not the thinking of a thinker; acting and working *mean* nothing, if in endeavouring to conceive them we leave out the conception of a subject distinguishable from them from which they proceed. But concerning notions which, as we tried to think them, can *mean* absolutely nothing, it is quite idle to inquire further whether they are fitted to be apprehended as the essence of actual existence.

To obscurities of thought which arise from real difficulties in the subject we can patiently make all concessions that yield the prospect of fuller understanding. If, then, we suppose that there is some *meaning* in the conception of a pure subjectless action, we may further ask how things must present themselves to us if their essence consist wholly in such action. Now here it appears to us that either from each thing a uniform activity *a* must flow continuously, or —should its essence be constituted, not by an ever homogeneous, but by a changing action—the several phases of this action must follow one another in the fixed order *a b c d*, like the cadence of a melody. The first case is self-evident; the second becomes necessary if we grant the condition, in itself not admissible, that in action *a*, which at one moment constitutes the essence of the thing, are contained a ground and a capability of passing into some other action. For then what results from *a* can be only a definite *b*, not with the same necessity any chance *m* or *n*; *b* can be followed only by *c*, not by any haphazard *p* or *q*; the sequence of action is then quite fixed; and were it conceivable that *f*, an earlier member of the series, should ever be required by a later one

$r$ as its consequent, the whole of the series between $f$ and $r$ would have to be perpetually repeated like the period of a decimal fraction. Now here no one assuredly recognises the behaviour which we think that we observe in things or must ascribe to them; if they were such, to assume them would be of no use for the explanation of the course of the universe, they themselves would be incapable of giving rise to it. We shall, however, be accused of a disingenuous incompleteness; we shall be told that we have forgotten that the uniform activity $a$ may, under the influence of external conditions, change into manifold forms of action, and that for the same reason the whimsical second hypothesis of an unalterable sequence in the phases of action is idle. But this other behaviour which unquestionably we do observe in things, seems to us itself at variance with the hypothesis that their essence consists in pure action. He who speaks of the influence of any condition must mean, one would think, that that on which the condition acts is *acted on* by the condition; but without doing away with the notion of pure action, it cannot be predicated of it that it is acted on; if things are acted on, their whole essence is no longer pure action, but that whence activity and passivity can be derived; and in this foundation of their being, distinguishable from each several act and each several state, reappears once more that very subject which on this theory was believed to be superfluous for the notion of pure action. But perhaps objection will be taken to the introduction of the notion of passivity; perhaps it may be thought that, if a condition acts on the action $a$, a new action, $b$, will at once arise and take the place of $a$, without any necessity for ascribing to the vanishing $a$ a passive state such as were possible not for it, a subjectless action, but only for an active subject not here present. Even this last expedient, however, is a failure. For on such a supposition nothing of $a$ would remain at the moment when $b$ followed it, and instead of active things, what would be affirmed would be merely a becoming or happening such as determined the relative succession of a multiplicity of phænomena unconnected by any inherent bond.

Now this conception of an absolute becoming (into whose further impossibility we do not here enter) would by no means commend the theory against which we contend. It was not intended that it should do away with or deny things; on the contrary, it was to uphold them, and was founded on the belief that in pure action their absolutely true nature had been grasped. So long, then, as we think that a changing series of phænomena must be viewed as inherently connected by the nature of a thing, we cannot conceive the essence of things as pure activity, and must seek it in the power that unites and regulates a complexus of action, of passion, and of reaction. This content is what stands before us as sharing in existence, in action, in operation—as itself existent, agent, operant, and it is no less far removed from ceaseless flux into activity than from the rigidity of a nucleus never entering on motion, but only allowing it to come to itself from without.

§ 4. But, it will be doubtfully objected, supposing we grant all this, is what we here apprehend, under the form of the Idea, as the essence of the thing, capable of participating in that existence which must pertain to things? Not as if, in spite of former concessions, we were still seeking to know by what magic things, whatever they may now consist in, came by their existence; but since not all thinkable things possess objective existence, the Idea must at least have to show the universal marks which distinguish what is admitted to such existence from what is excluded from it. Now, is not chief among those attributes of everything truly existent this, that it is in itself *one?* And does not, on the other hand, everything to which we give the name of Idea seem to presuppose a number of elements, of whose mutual connection it is the expression—and such an expression that, as the result of its influence on our susceptible imagination, there arises in us an harmonious unity of mood, although nothing correspondent to this unity of our own state exists outside ourselves in the relations of the elements, so far as we know? After all, then, is not every Idea a thought, framed by the comparing activity of an intelligent being when it embraces

within itself the multitude of phænomena, without this thought being ever present in that multitude itself as a productive and moulding force?

These objections have often been made, and in order to meet them an attempt has been made to substitute for the Idea, which of course includes manifold tendencies and relations of one being to another, an absolutely simple primitive quality as the essence of each individual thing. This, according as one views it, is to introduce either only a new name, or with that also an old error. For the essence of the thing must in any case be of such a nature that its subsequent effects and manifold attributes can proceed from it—not, indeed, without being occasioned, but under the influence of external conditions; it must, further, be such that those combinations of its states, which are not exclusively dependent on the sequence of stimuli from without, must be developed from it on occasion of such stimuli; in short, that simple quality must contain exactly the same source of action and passion and of arrangement of internal states that we sought in the Idea. So far, the simple quality is merely an altered name, containing at most an admonition to conceive the content of the Idea as the essence of the thing, not in that dismembered fashion in which, if we knew it, we would express it in language, but concentrated in the unity of a single attribute, in the form of a primitive quality. Unquestionably, such concentration was involved also in *our* meaning; the error of *this* conception, on the other hand, lies in the fact that the form of Quality is incapable of accomplishing the concentration of the Idea to unity.

For, however unknown, nay, unknowable, we may pronounce the quality of anything to be, if the name *quality* is not to be a quite meaningless arbitrary designation of the essential content of things, but to denote it (at least formally) with precision and significance, the unknown quality of beings must possess the characteristics peculiar to every quality as such. But we know only the qualities of sensation; from them alone is the universal notion abstracted, and of them

alone do we think when we speak of the essence of things as this theory does; we form our conception of supersensible qualities entirely on the model of the sensible ones with which we are familiar, and, so far as we succeed in this, we are for the moment satisfied. We conceive the essence of things as no less one with itself than the blue of the skyey vault above us which fills void space with its fulness and form, in changeless repose without a trace of or a tendency towards aggressive mobility; we conceive it as free from internal relation and division as every simple colour, and we even rest contented in the contemplation of it so conceived. We only forget that this repose is too motionless, this unity too simple. For we are certain to be reminded that the unity of things is not meant to rejoice perpetually in itself, but must send forth from itself the motley variety of phænomena. And this is impossible for a content, that from its nature must be conceived in this form of quality. It could be abolished, but not altered, for any alteration presupposes a permanent identical foundation on which what is changing falls back in order to evolve from it the new form. The simple quality has behind it nothing of this kind—and the simpler it is, the less do the notions of activity and passivity admit of being associated with it. The quiet open smoothness of unreserved self-identity that we remarked in the sensible qualities, and admired as the most genuine expression of the unmoved nature of the existent, on the contrary is never found in this. It does not even indicate an immobile attribute; it is but a pleasing appearance in which is fixed for our thought some restless moment of an event, of reciprocal action between several elements; the existent itself, whose calmest and most objective embodiment we expected to find it, is what we can least of all apprehend according to this analogy.

And now to bring this inquiry to a close. If any one still asks how the content of an Idea can have the unity which is indispensable to the existent, and which we found, indeed, in the quality, but without the germ of variety which is no less indispensable, we point the interrogator to the following train

of considerations. To thinkers seeking to express and represent the essence of any object by means of notions and words, it is of course not the expression itself but the content which it connotes that stands for the essence of the object. The term Idea has a double meaning, and expresses first the content of things, but, secondly, the form of the thought-image in which we reproduce that content. The circuitous ways along which our representative thought travels do not exist in the thing represented; the number not only of words, but also of points of relation, perhaps thought without words, which we require in order to make clear to ourselves what we mean, does not imply an equal number of parts in the contemplated object. If, therefore, Idea in this sense of a thought in us is a manifold and restless energy of relating and comparing knowledge, which cannot in this form be apprehended as the objective essence of the thing, on the other hand, what this thought means is capable of original unity. The same revolving meditation reproduces in us from the varied sequence of the elements of a poem the unity of its poetic soul. An Idea concentrated in the form of such unity we call the essence of a thing. Should an insatiable curiosity still seek a hint as to how the content of an Idea can be condensed into this unity, and how the result of such an exertion conceived, this would imply entire misapprehension of the problem and of what cognition can accomplish. For such a requirement would be tantamount to the desire to experience what must be done in order to *be* that, the cognition of which is the subject of our present discussion. Even the fulfilment of that wish would not lead to the desired goal; for, could we now really transform ourselves so that we should be that which we would discern, the very effort, then, to know also what we were would of necessity change even the new being into which we should have been transformed from a unity into a composite representative image consisting of manifold parts and their relations.

We have but one word to add in regard to our reason for availing ourselves of the double meaning of the term Idea;

for it was done with a purpose. Among the various ways of apprehending objects, we distinguish by means of this term that which characterizes its object, not by a certain number of fixed marks, or by a particular kind of connection between variable marks, but solely by the permanent identical meaning that can be expressed in a boundless variety alike of the marks and of their modes of combination. It is a man's image in space that is intuited (*Die Anschauung des Menschen ist sein raumliches Bild*); the generic image (*Vorstellung*) of man adds to the other attributes of this image, and of the remembrance bound up with it the secondary thought that all this variety forms a whole; we acquire the notion (*Begriff*) of man when we set the wider superordinate category of the species as an ordering centre into the midst of his particular attributes; but we have not the Idea (*Idee*) of man till we apprehend the thought to realize which he is called, a thought bound to no particular series of attributes, but containing the reason why man must be a phænomenon in space, a connected organism, the head of the animal kingdom. This significance which lies for us in the Idea as a form of thought, we sought to transfer also to its object by the use of the same term: our aim was not to think the essence of the thing as exhausted by an inactive quality, or to apprehend it through a certain action or a certain series of several, but to discern its full content only in the meaning, which it realizes in the most varied manner and by the most varied forms of development

On the other hand, it was by no means our intention by the choice of this term to intimate our assent to the celebrated proposition that Thought and Being are identical, and our belief that things have no other content than that which we can by thought reproduce in the form of the Idea, or even, perhaps, than this form of the Idea itself. We have, indeed, already expressed the general conviction that the essence of things does not consist in something so alien from mind as to be to it impenetrable; but mind and mental life are more than thinking. It is quite possible that what things are is not beyond the possible experience of the whole mind, and yet

that it is wholly incomprehensible by this one form of its inner energy—thinking. Feeling and volition, pleasure and pain, are forms of our inner experience, for which our conscious thinking, as it watches them, devises names indeed, while yet never making intelligible by forms of thinking the distinction that separates them from all thinking; they are intelligible only to him who knows them by experience. In like manner, the essence of things could be described by thought proper, if the mental eye ever pierced to it through the veil of phænomena, though, perhaps, this description would contain many terms whose meaning cannot be conceived—only lived. But whatever this essence might be, it would involve the Idea as the formless permanent ground of changing forms.

§ 5. We must now plead for indulgence for this long course of abstract reasonings. They were not intended to set at rest questions which only Metaphysics can answer, but merely to indicate the point of view of our next inquiry. If we now cast a glance backward to what led to this digression, we shall remember that we found we could not predicate of the human mind in general an essential similarity with the souls of the lower animals, in order afterwards to exalt man above the whole animal world by the compensating addition of a higher faculty peculiar to himself. What he is he must be, as an indivisible whole; what the souls of animals are, they too must be as vitally active complete Ideas, each wholly distinct from the other, each a perfect unit in itself. And thus we might conceive a realm of souls in which each species, and in it each individual, should have its fixed place according as the vital Idea which it expresses stands higher or lower than, or on a level with, others in the cosmic order. It may thence seem as if here, too, a deeper knowledge of the individual were to be hoped for from a survey of the whole to which it belongs; insight into the nature of the human mind from the study of the animal souls, which are the preliminary stages leading up to it. But, apart from the necessarily defective character of our knowledge of the psychic life of

animals, which in most cases would only permit of our substituting unproved ideas for certain facts, this theory is also on other grounds fallacious, or at least for our present object useless. For this order of the realm of souls, if we knew it, would give us a deeper comprehension of the Infinite Being that may behold itself in this image; but it would contribute little to the right appreciation of the tasks assigned as its share to human life, and of the means at man's disposal for their execution. In regard to this last question, it is but of remote interest to know what position the human mind fills in the scale of beings; on the other hand, an acquaintance with the conditions acting causally on him and determining his development, is of very great importance.

In this relation his position is different in the realm of souls from what it is in such a scale of species. How nearly akin to, or how far remote from, ours the soul of any kind of animal may be, is to us a matter of indifference, if it does not act on us. The animals for the most part stand in this relation of indifference to our development, and soulless or inanimate Nature possesses under the conditions of our culture a far higher importance in proportion. That the dexterous instinct of many of the lower classes of animals moves in (at least apparently) quite different and alien modes of action when compared with the energy of the human soul, is to us on the whole a fact of small significance; myriads of such instincts may still be unknown to man, even those with which we are acquainted come little under our view; whether they were there or not, human development would remain the same. Of other classes we can speak differently; many of them approach us effectively, but perhaps they are not just those which stand next us in the scale of psychic species. The progress of human civilisation has nothing to do with the apes, much with the horse and the other domestic animals. Not only do they serve us by their bodily strength like living machines, but on our intercourse with them mainly rest the conceptions which we form of a psychic life different from ours, and yet in general related to it; and, unquestionably.

the very conceptions which we form of a soul other than our own are the most important part of the influence exercised by it upon us. The action of man on man is the most natural of all; the importance of this relative influence throws into the shade all the other relations of a similar nature in which we stand to the animal world. In research into these things must lie enlightenment as to the essential peculiarities of human life; any attempt, on the other hand, to place man at the head of an earthly realm of souls, and to explain his destiny from the nature of the lower stages, would be one of those brilliantly beginning but vainly ending spectacles, many of which have in succession been presented by anthropology.

We have not as yet answered the second of the questions which we proposed at the opening of this inquiry. For in what we have hitherto stated we could only try to show how an essential peculiarity of the human mind must be thought, should the examination of facts compel us to presuppose such. We have not yet solved the problem whether perhaps the human mind may not carry on the course of psychic life in the animal world without any essential break, with no distinction save its higher development. Though we have made no secret of our disposition to answer this question in the negative, to return a definite answer is not here possible, and we must content ourselves with dwelling on the difficulties of such an answer. Should we seek to decide it apart from the comparison of experience, we might well expect it from nothing short of the final results of speculation in regard to the necessary formation of the universe and the connection of its parts. What is to be derived from this source we shall towards the close of our inquiry try to bring together as a whole, and we shall see that the value of the question itself for this highest standpoint is greatly diminished. The general principles that might be besides applied would lead to no certainty. Perhaps to meet the hypothesis that everywhere similar souls would reach different levels of culture only by means of the very different degrees of advantage given to them by corporeal organization, the

argument might be brought forward, how incredible it is that similar souls should be attached to so widely differing corporeal husks. But all sorts of conjectures in regard to transmigration of souls, fanciful and unsupported by experience, yet incapable of being disproved, would at once be ready to remove this paradox, and to show what a lesson of progressive training might lie in the gradual transference of originally quite equal beings into other and more perfect bodies. If we turn to experience, the task of decision becomes no easier. All the facts that lie before us are limited to the universal and indubitable impression of a far lower development in animals; but this impression has been so imperfectly analyzed that no sure inference can be drawn from it as to the causes of this inferiority. Our acquaintance with animal psychic life is much more superficial and uncertain than it mostly suits the self-confidence of philosophical classifiers to allow. We certainly often estimate the degree of its development wrongly, probably often too low; for we quite correctly ascribe to the animals the energies whose operations we have before us; but with very questionable justice we deny to them others which they either cannot express or of which their expressions are too alien to be comprehended by us. If we now try to draw from these defective premises conclusions as to the likeness or unlikeness of animal and human souls, we find ourselves tempted to enter on two opposite paths of error.

We necessarily start from the contemplation of our own inner life; from it first falls a glimmer of comprehension on animal psychic life, with which we are not directly acquainted. If, now, we are not in the habit of analyzing the several operations of our own mind, and of tracing back to simpler processes the origin of many apparently new powers, we are struck by every superficial difference between men and animals, and fall into that easy mode of classification which defines the nature of the different souls, as with the certainty of chemical formulas, by the combination of various constituents, *i.e.* of various powers supposed to belong to the one

species, to be wanting in the other. But, on the other hand, even this correct habit of tracing back composite or derived mental functions to their simple roots leads to the opposite fault of over-estimating the external aids of working, and to the folly of trying by means of endlessly varied external excitements to call forth from absolutely similar beings operations that can flourish only on originally different soils. Of course in this respect one comes back mainly to the bodily organization, for this it is that mostly gives their peculiar colouring to the external circumstances of each individual life whose influence constitutes the second great circle of conditions of the specific direction of the soul's growth. Now it can be demonstrated to a certainty that many corporeal arrangements promote or hinder particular forms of mental expression; thus the conception of space that may be developed by eyeless animals must necessarily be different from that of those which see; to those of completely symmetrical structure it must be impossible to distinguish directions in space; to those without voice the communication of internal states must be not only different, but far more imperfect. But whereas in general from the absence of an organ we may conclude the absence of an operation, we cannot with equal directness infer from the presence of an organ its use, and the variety of the mental energy that manifests itself in it. We must leave to the course of this inquiry the bringing forward of particular cases of these things; wherever, however, we let a side-light fall on the psychic life of animals, it is with the object of bringing out by contrast the significance of that of human beings; in most cases such comparisons but embody our fancies as to how it may be with the animals, not as to how it certainly is or necessarily must be.

This uncertainty of our judgment is, however, without any material influence on the subject of our immediate researches. Of course for an inquiry relating not exclusively to human culture but to the whole mechanism of psychic life, the question as to the likeness or unlikeness of the means by which

the various levels may be reached would be one of vital importance. We, on the other hand, are concerned chiefly with what man is, not with what the lower animals are not. The anxious shrinking from being brought into too close affinity of nature with them is wrongly associated with the question whether we belong to the same species or not. For, after all, ours is the higher development; this possession forms the abiding distinction between us and them, and the gulf between us does not become greater or less according as it is pronounced to be a generic distinction or the result of similar capacities meeting with various kinds and degrees of furtherance. Things always *are* that which they actually prove to be; it would not be worth the trouble to become anything if one were to be estimated according to what one originally was.

We have preliminarily to add almost the same remarks—especially the last—in regard to the third of the questions which at starting we proposed. The mental culture of the human race itself varies from brutal coarseness up to the height of a genius which we rashly think to honour by calling it divine. Is there in these vast differences a certain common element that we may be right in regarding as the human mind? Are the minds of the various races of mankind essentially different? Within the same race where can we, amid the infinite variety of individuals, find a common standard and how apply it? Does it in general fall high, and does clownishness remain below, kept back by the unfavourable influence of circumstances and by defects of bodily organization, or does it fall low, and does genius rise above it in virtue of favourable conditions of life and superior bodily organs? Or, lastly, can we name any definite attributes or characteristic habits of working which, recurring in all human souls, bind them into a harmonious whole, while permitting to individuals, in infinitely different degrees, an indescribable variety of individual character? It is the affirmative answer to this last question that is the object proposed in further inquiry. After we had put beyond doubt this common bond,

we should have no reason to exclude from the series of conditions determining the highest level of culture, outward circumstances and bodily constitution, neither of which is adequate to determine it alone. The universal standard of human culture falls neither high nor low in the sense in which we made the inquiry; an average of actual culture can be struck, but no measure can be found for what it ought to be. The body has a normal form, and is perfect when it fills the outline of that; before the mind floats, not a *normal image* of its development, but an *ideal image* of perfection, never reached; the energies characteristic of mankind prescribe in general but one direction to be followed in pursuing it, but they yield no measure of the distance at which it lies. Finally, whatever doubts may arise as to the equality of mental capacities in the different races of men, these capacities are at any rate sufficiently alike to make them all capable of a common human intercourse, in which, however, their shares are of varying degrees of importance; they together form the great community of mankind exercising reciprocal educative influence. In this genuine practical unity of reciprocal action we have ample compensation for the denied gratification of an idle logical curiosity, as to whether men take part in this task as different species of one genus of minds or as closely-related members of one and the same stock.

# CHAPTER II.

## HUMAN SENTIENCE.

Different Explanations of the Senses—The Indifferent Content of Sense, and the Feeling of Pain or Pleasure that accompanies it—Intrinsic Worth of Sense-Impressions—Consonance of their Nature with the Stimuli to which they correspond—Examples: Light and Sound—Æsthetic Judgment—Symmetry in Space and Time—Mathematical Aspect of Sense-Imagination—Understanding and Sympathetic Enjoyment of Alien Forms of Existence—Of the Use of Implements—Of Dress and Ornament—Of Ceremonies.

§ 1. NOT only does the whole current of intelligent life commence with the sensations, but to these it incessantly returns in order to find materials and starting-point for new developments of its activity. We too must refer to the sensations when our object is to review the peculiar and permanent inclinations and habits in which the nature of the human mind displays itself, and from which combined we must form our idea of that nature. No doubt it is scarce possible exhaustively to measure the whole depth of the mind's original endowments from even the fullest manifestations of its activity, but still the unity of its being must light up with some promise of its higher efforts even the simplest mental processes, and perhaps the traces of its presence are distinct enough to be recognised.

Meanwhile, of the numerous lines of thought that connect themselves with the consideration of human sentience, we set aside some that are foreign to the object of our discussions, and in which, as it appears to me, information is often sought such as they are incapable of yielding. Among these is first of all the inquiry into the physical causes of our sensations. We formerly found reason to believe that a sensation in consciousness retains no indication of the peculiar nature of the

outer movements that act, as stimuli, on our organs of sense. The note has taken the place of the atmospheric vibrations, colour the place of the undulations of the luminiferous ether—both of the two sensations results, neither of them copies, of the external agency that produced them. For untrained consciousness at least all is obliterated that preceded the appearance of the internal phænomena that as tone and colour are perpetual productions of the mind's peculiar nature; as such they go on working in the natural course of the inner life, and an investigation of the effects which they produce in it would vainly turn to the special character of their external causes. As we do not hear the number of waves of sound, but only a note, so music is not more harmonious for him who understands how the tones and their chords are formed than for him who without any such knowledge simply and ingenuously lets himself be moved by it.

Another question is—What is the relation of our whole sentience to the outer world forming our scene of life, for the representation of which it somehow seems intended? Each one of the physical processes that act as stimuli to our senses may in the connection of Nature discharge a distinct office, or—to speak without presupposition—each one contributes to the total of Nature a peculiar and more or less important characteristic. Taking account of the definite value of the sense-stimuli in relation to the outer world, we can trace in the fact that each reappears within us in this definite form of sensation and in no other, a peculiar meaning perhaps rather to be felt than to be put into words. We shall then perceive that, in spite of all incommensurability between physical motions and the sensations that result from them, yet the latter render in their language the special meaning belonging to each of the former in the web of mutually crossing natural effects.

There is here an element of truth which we meet with also in another conception of human sentience, though there it is misinterpreted. Attempts have very often been made to represent the several forms of mental activity as an articulated series, in which an inherent impulse of the mind

to see itself reflected in things attains an ever higher degree of satisfaction. In like manner man's five senses, or whatever scientifically corrected number may be put in their place, have been regarded as a connected system, the function of whose members it is to translate the essential forms of the vital activity of Nature into corresponding forms of mental stimulation. It is true we never get from such speculations an idea of the true mental life which consists, not in trains of reasoning, but in the infinitely varied crossings of all those forms of activity which, with complete oblivion of the rank assigned to them in the system, are at every moment thronging, in the busy mind. But as regards sentience at all events, it might be replied that in the outer world the great fundamental forms of the life of Nature are themselves constantly coming into the same confused collision, and yet that they do not on that account cease, as the binding threads of the whole web, to retain the old distinctions in the value of their significance. This, it may be said, is repeated in sentience, and when it unites different sensations in one moment, or brings them one after another at random, it but imitates herein the procedure of Nature, that likewise now brings to the front her simpler elementary impulses alone, so that they fill the whole phænomenal scene, now brings into relief against this darker background their more perfect modes of operation.

Now I certainly doubt whether those who have made attempts of this kind have grasped the peculiar meaning of the processes that underlie the sensations, and their value for the meaning of Nature as a whole; I doubt whether light is the pure identity of matter with itself or the unity of its reflection in itself, if sound is a denial that spatial externality of one part to another is something existing independently, if heat in the form of a living energy is the denial of the continuous occupation of space; and I am not sure that to define smell as specific air, or taste as specific water, would add any material charms to the natural image suggested by the sensations. But even an excess of awkwardness in its elaboration

would not in itself affect the truth of a principle of explanation, and we cannot deny that there is an interest in comparing the significance for Nature of the external sense-stimuli with the greater or less vividness, force, and peculiarity of the forms of sensation corresponding to them in ourselves. But the point, as it appears to me, wherein almost all these attempts fail is, that they take a speculative interpretation, which our reflection *can* connect with the content of sensation, but in general would do better not to connect with it, for a natural constituent of that content, that must of itself come into connection with it in every unsophisticated soul. Those speculative meanings which the philosopher perhaps rightly attributes to sensation and its objects, are not in the sensation itself, or in the sentient soul, either as incidental thoughts always associated with the impression, or as conscious motives that must give the special character of the content of sensation an influence of definite amount and direction on the rest of the mental life. They are all no more than fancies *about* sensation, not the peculiar fancy of sensation itself, and yet we can perhaps show that there is something that deserves the latter name.

I have so often already committed the sin of allowing myself to wander from my limited subject into very wide digressions, that I would in fact gain nothing by refraining for once from doing so. Those theories in which the distinction is so admirably drawn between the mere existence of a form still in its germ and the full existence for self of its developed perfection, seem to me to show in most of their applications a forgetfulness of this commendable distinction. The aim of their whole view of Nature and of mental life is invariably directed towards discovering for every being and every phænomenon an Idea which each is to be looked on as realizing; but the question is exceedingly seldom proposed, how much of the profound content of the Idea represented for us by any being exists in that being itself, whether as an effective conscious motive of conduct, or as an object of conscious enjoyment. In short, we learn indeed how objects

look to us in virtue of their Idea, but not what they themselves have of it. This last question is not unmeaning and idle, when the subject of inquiry is no longer natural processes, in which perhaps but an unconscious reason is at work, but intelligent existence. We may allow that even in the processes of the inner life there is often a rational connection not discerned by the very subject of that life; but at any rate that cannot be so throughout, and not expressly to raise the question what each several being as such may possess of the Idea that, as part of a whole, it contributes to realize, is to neglect what at least possibly is a very important aspect of the subject, perhaps the very one in which are contained the really efficient causes for the production of the most momentous events of life. In the study of history it is not enough to enumerate one after another the world-moving Ideas that suggest themselves to the comparative student thousands of years later as the essential features of each age; we have also to learn how the age itself and each individual in it felt, and to what extent the Idea which we discern in distant perspective was then present in minds as an actually tasted enjoyment, as a practical direction of phantasy, as a vitally effective motive of effort, as comfort, as sorrow, as incitement, as hope. In like manner, for our study of sentience the question is not what meaning might be found in its processes, but what meaning the sentient soul itself inevitably, though not with the distinctness of full reflective consciousness, connects with these processes *at the moment of their performance.*

A former inquiry resulted in our framing the conjecture that, strictly speaking, the impression produced by an external stimulus never consists in an indifferent sensation yielding only a definite content to perception, but that attached to each sensation is an element of feeling which measures in terms of pain and pleasure the value of the stimulation received for our individual existence. As concerns the qualitative content of sensation, it will always be impossible to decide whether in different souls the same sensation responds to the same stimulus; but there is no reason whatever to suppose the

contrary. And so we take for granted that all animals endowed with organs for the transmission of an external stimulus perceive it in the same form as we do—luminiferous undulations as light, atmospheric vibrations as sound. Whether the limits of their susceptibility are wide or narrow can also be accurately determined neither by observation nor by experiment; if a class of animals is destitute of the organ on which for us depends the influence of a particular stimulus in its usual form, that is not to say that it is wholly cut off from that influence; still it is probable that it will make a less important contribution to the sum-total of sentience. From the general impression created by observations, it seems likely that to animals in general the finer contrasts between the different perceptions of the same sense by which we are struck are less distinct, and that fewer of them are embraced within the series. While to ourselves, on account of the peculiar character of our nervous energy, only a few octaves of tones, and scarcely so much as a full octave of colours, are perceptible, the sentience of animals perhaps moves here within yet narrower bounds, and what they perceive may be discerned with less of vivid discrimination; somewhat as we notice affinities between particular tastes without being able to arrange them into a scale. As a compensation for this deficiency, in particular classes of animals many states may be developed into greater clearness than with us from the dark chaos of what we call *general sense* (*Gemeingefuhl*); and it is conceivable that for many subtle modifications of the electrical and chemical state of the body, and further (by means of a peculiar structure of the nervous tissue) even for the phases of transformation of matter and plastic activity within their own bodies, the consciousness of animals may embrace a power of discernment that we are without. On such circumstances may be grounded many of the adapted activities of animals, which seem to us to involve an anticipation or prevision of the future, while really springing from perceptions to us wholly unknown of changes that have already taken place in the vital conditions.

The other constituent of sensation, the feeling of pain and pleasure, that associates itself with its content, we should doubtless also meet with in the inner life of the animal—in many cases probably raised to greater intensity; but in this very point we believe may be found an essential distinction between human and animal sentience, or at any rate a significant and important characteristic of the former.

In the lowest of our senses, those which on account of the structure of their organs and the nature of their sensory content are least adapted for a subtle perception of manifold objective relations, we find liveliness of feeling at a maximum of intensity. In pains caused by disturbances of the internal organs, or by violent irritations of the skin, all distinctness of sensory content gives way to the intensity of the suffering and becomes perceptible again—then even but faintly—only on the abatement of the irritation. We describe our pains only in terms of their appearance in time and space; whether they be piercing, rending, stinging, or gnawing, their own qualitative character cannot be put into words. Only their lesser degrees show some affinity with the peculiar character of the sensation of warmth; but if we call them burning, we thereby still but denote the pain itself, to cause which too high degrees of heat concur with other pernicious stimuli. Smell and taste, both accessible to a greater variety of impressions, both still incapable of giving rise to an image in which are represented the relations of a composite object, both, finally, very closely connected with the energies on which depends the preservation of the individual bodily life, are the source of multiform feelings of less intensity. Multiform, because along with the more distinctly apprehended content the help or hindrance which it brings us also becomes apparent in its peculiar character; the distaste for the bitter differs from the shrinking from the disgusting, not only in the degree, but in the kind of suffering involved; each scent is in its own fashion agreeable or the reverse. But, however intense these feelings may be, they yet never attain the force of pains, and it will be allowed that even the most repulsive in this region does not actually

hurt us. The tones in whose succession and simultaneous combination music opens to us a world of sharply discriminated relations, are only incidentally associated with any disturbing impression; sometimes the excessive loudness, sometimes the confusion, sometimes some special grating or shrill effect, of sounds irritates our nerves sufficiently to cause convulsive movements, but in itself and its own nature no sound is so unpleasant as many a smell or taste. While a perfectly clear and well sustained note does of itself produce an unmistakeable feeling of pleasure, displeasure can arise only with the combination of tones; but however irritating to our sense of hearing a discord may be, our sense of discomfort never approaches the degree of physical repulsion caused by a disgusting smell. We do indeed feel hurt by the want of due proportion in the tones, but at the same time we have the thought that their combination is in itself no less faulty than the impression on us is unpleasant. Light is free even from the sense of discomfort that attends the peculiar sound of many tones; only its greatest intensity dazzles us; particular colours are associated with peculiar pleasure or pain only for the arbitrary idiosyncrasies of individuals, and even want of purity in colouring, or want of harmony in the arrangement of colours, does not call forth the decided aversion that is the result of discordant tones. We feel that our self is no longer threatened by the nature of the impressions, and so we begin merely to disapprove of, as in itself not beautiful, that which in other senses we repel from us with the direct abhorrence instinctive to injured personal existence. It is clear that for the eye, whose office it is to render a true and impartial record of an infinite multitude of closely related points, nothing else is suitable than this even impartiality of sensation, which never suffers its equable attention to be betrayed into a false distribution by the agreeable or disagreeable nature of the impression.

While thus in the higher senses the emotional intensity of the feelings gradually declines, there becomes in them more distinctly prominent another mode of judging of impressions

which is already secretly at work in the less highly developed sensations, and in which, we believe, lies the properly distinctive characteristic of human sentience. On the one hand, we never apprehend the impressions of sense merely as a qualitative content, and on the other hand, in the feeling that accompanies them we never become aware merely of a value for us, but also of an intrinsic value. Only in the lower senses does the intensity of pain overshadow this never wholly absent judgment, and make it seem as if pain or pleasure were the measure only of the degree of the utility or hurtfulness, not of the inherent value, of impressions; in the perceptions of seeing and hearing, on the other hand, this brutish egoism of sensation becomes transformed into a clear recognition of sweetness and significance inherent in the content, as apart from the fact of its pleasing us. I do not believe that this phænomenon enters into the psychic life of the lower animals. They, too, repel with aversion the object that offends their senses; this shows that they conceive it as a something from which their discomfort proceeds, but I do not believe that they form a conception of *what* this something is in itself, apart from the mode in which they are affected by the object. They fill up the outline of this something only with a reflection of their well or ill being, and they push away the disagreeable object because they see in it the embodiment of their own pain, which acts on them as if from without. Yet, as already observed, such conjectures cannot be used as positive assertions, but only as illustrative contrasts for what we observe in man. Now in him the facts are as follows.

However repugnant and most forcibly recalling animal life the special development of the sense of taste may appear to us, it is yet true that even in the most degraded debauchery it is not merely the pleasure of the palate that is sought as an agreeable bodily stimulation; on the contrary, the discriminating tongue recognises in the taste of the dishes a virtue peculiar to each, in whose agreeable accessory effects it no doubt very readily takes pleasure. It is the animal alone

that merely gorges and swills its food and drink—*i.e.* applies the outward means solely to getting rid of a disagreeable craving, or to causing an egoistically pleasurable sensation; it does not linger over these means, but is in haste to consume them; it does not throw itself into their nature by noticing, tasting, and considering; to it they are nothing but means for its end. Man when eating and drinking, on the other hand, cannot help accepting sweetness as something friendly in the things that have it, cannot help looking on their bitterness as something malicious in them; he can fall into raptures over the inherent excellence of the natural substances to which he has access only through his sense of taste. Not as if all he sought were his own enjoyment; only there is no other means of recognising and appreciating this good in things but the tasting of them by sense. Even the equivocal preference of human appetite for the fluid form of taste-stimuli shows its freedom from the yoke of the coarsest corporeal enjoyment; still more distinctly does the delight in perfumes exhibit this tendency to absorption in an objective charm of material things. The animal world seems not to share this tendency; strongly as the sense of smell is in some classes of animals developed in the service of their vital ends, we nowhere meet with a definite case of pleasurable feeling to which scents sufficiently minister. Human civilisation, on the other hand, very early surrounds itself with fragrant odours, at first in solemn moments of religious fervour, ere long as an embellishment of daily life. This practice cannot have arisen from the trifling amount of sensual pleasure so created; it receives significance first from the imaginativeness of human sentience, which does not allow itself to be transported into another atmosphere of existence without recognising (even if dimly) not only the pleasure which it thence receives, but also its peculiar and inherent value. Shall we add that the content even of the other senses, that even heat and cold, are apprehended by us neither as indifferent distinctions, nor merely as forces causing pain or pleasure; that, on the contrary, even in them we find an independent

and inherent beauty or ugliness, the beneficial or mischievous effect of which strikes us only by the way? Finally, returning to the higher senses, shall we recall how in sound and colour almost every trace of egoistic interest has been effaced, and we give ourselves up wholly to the contemplation of a self-dependent excellence? So great is the inherent value of these impressions, that amid all the poverty of our life in other respects we may ever thank the kind fate that day by day spreads this fair world before our senses, and permits us to plunge into the living mysterious depths of colours and tones and odours.

§ 2. But now what is it that our imagination fancies it can discern in these elements of sentience? We can hardly put it into words, and yet a perfectly natural impulse, no less peculiar to the human mind, is wont to ask and try to find an explanation. In the phraseology of every civilised language many instances are to be found of an attempt to render distinct the peculiar character of one set of sensations by comparing them with another set; some point of resemblance in the different sensations is thus perceptible to our minds. We speak of biting and fiery tastes, we also compare a lower note with darkness, a higher one with light; we fancy we have before us in the scale of vowel-sounds such natures and distinctions of nature as we have in the scale of colours, and the colours to many susceptible persons seem to repeat over again the peculiarities of the tastes. Of course in all these matters the wide differences between individuals, as well in bodily organization as in mental disposition, will always prevent universal agreement; and even if for every one *a* and *u* should still stand as white and black, assuredly every one will no more conceive of *e* as yellow, of *i* as red, and of *o* as blue, than every one will find in red an aromatic sweetness, in blue fluid acidity, in yellow a metallic taste. No doubt we may still further allow that for each individual the resemblances which he discerns between various impressions rest at bottom not on a comparison of their immediate content, but on a perception of a subtler and more hidden

resemblance between the disturbances which both cause in his own general sense; but these two concessions do not alter the value of this whole conception for our human development. The first does not: for the individual mind prizes only the vivacity with which the impulse to these comparisons stirs within it, while to it it is a matter of indifference whether it discovers anything universally recognised or not; the second does not: for all sentience lives and must live in the delusion of taking its own excitation for the nature of objects. No matter, accordingly, what be the genesis of this theory and how great a portion of truth or of error it may contain: as it is, it forms a distinctive feature of our sentience, and exerts an immeasurable influence on our view of the external world. The pain and pleasure which we experience from the thronging impressions of things becomes transformed into a direct intuition of vitality, good or bad, in the things themselves—an intuition that no longer helplessly confronts the inexpressibility of sensible qualities, but discerns in them of what spirit they are all the children.

Between the motionless and moving masses of Nature the vibrations of elastic substances, whence are derived light and sound, hurry to and fro as the rarest and fleetest instruments of mutual communication. It is long before the forces usually at work in Nature bring bodies apart from each other into any important new reciprocal action, and slight obstacles are sufficient to prevent or render incomplete the transference of their respective states. Without those living undulatory motions the several masses of the globe would have in the pressure which they all exert on each other a poor bond of community, but the peculiarities of each—both its outer form and the character of its internal connection, as well as the nature of its constituents—would for the most part remain without any effect whatever. To this chaos of masses, knowing nothing of each other, the waves of the luminiferous ether give an inherent connection. Every plane, every edge, every corner of a body, every capricious projection in its form, tells by means of the special direction in which it

reflects the waves as they come; each body irradiates with the geometry of its own form all the elements of its environment; and beyond its immediate vicinity, with velocity swift as thought, unconfused by the similar emanations from other bodies, this revelation of its nature reaches to the furthest distance. Nay, the peculiar character of what fills up its outline in space is indicated by the colours that it reflects and those that it absorbs; its transparence discloses the symmetry of its structure and the uniform continuity of its internal arrangement, its opaqueness the heterogeneous character of its constituent parts. Thus what each body was for itself has now also become actual for others; not as if we were entitled to speak of light as a spirit shining in or into Nature; but assuredly its undulations are the universal and pliable medium of communication which each several element can stamp with the image of its individual states, and by which it can bring them to bear on other bodies. To bear, however, with an influence that is limited to a minimum. For very rarely, when not accompanied by waves of heat, do the luminiferous undulations alone produce an abiding change in the nature of bodies; myriads of times the bright ray passes through the transparent body, or is reflected from its mirroring surface without producing any effect, and the general result of the manifold play of waves is not so much any energetic reciprocal action on the part of the elements as the knitting and effecting of mere relations which do not affect the nature of things, and only as it were reveal the existence of one thing to another.

Do we now again find this significance of the waves of light in the fact that to our eye they appear as radiance and colour? I feel how difficult it is to answer this question, the import of which cannot be made distinct by dint of contrast with any other conceivable relation. For who can form a clear conception of what would be the state of things supposing the stimulations of our eye through the undulations of the ether appeared to us not as light, but as some totally

different kind of sensation, resembling colours only in this, that like these its perceptions involved extension in space and being definitely situated beside one another? Could we form such a conception, then more easily than now we would perceive that in the peculiar character of our sensation, in what makes light light, in the bright radiance and glitter itself, is immediately contained the impression of a clearness of all relations, of the solution of all doubts, and of a comprehensive unity, in which everything individual has or can find its place. Not like sound arising only here and there, interrupted by pauses and coming from particular directions, the universal light of day, to which countless reflections give a continuous brilliance, forms the open, clear, and wide scene of our perceptive activity, in which the myriad reciprocal actions of things may meet, but in which primarily shining only without effect in the security of their mutual relations they are arranged alongside of one another. No other sensation yields the same direct impression, no reflection supplies it; to ourselves in the dark the infinite extension of space no longer seems so cheerful a belief as in light, however firmly we may remain convinced of it; and the person born blind, even if by combining ideas of motion and sensations of touch he gains an accurate idea of his surroundings, will never learn what it is to be in space as the man with eyes, before whom the world lies bathed in light. Of course one part of this superiority is due to the ease with which the glance surveys at once innumerable details, that the sense of touch must laboriously put together; yet I do not think that the peculiar character of the sensations of light and colour is without a share in it. The language of our poetic phantasy would not borrow from them its names for all knowledge, all waking life, if the radiance of colour did not to our natural feeling seem the most direct manifestation of a foreign reality by which we are confronted, into whose depths we fancy we can look, and yet of which only the charming surface —with which it takes its place in the order of all things— ever becomes clear. Colour of course does not profess to give

more than the outline of reality; it is the most complete example of what we call *quality*, of that content through which the existent first gains for us fulness and clearness, and which yet, just because it is quality to be discerned from without, remains an image eternally foreign, impenetrable, and never to be completely transformed into soul.

The inner nature of things, on the other hand, it has always been thought, is apprehended only by means of sound. And in fact it is the very substance of bodies that, mightily moved by the waves of sound, is not seldom abidingly altered—nay, rent asunder, by the power of the vibration; the intensity of the strain with which the efficient forces resist change in the connection and situation of the particles, and hardness and softness, and brittleness and unsusceptible submission to derangement, are evidenced by the sounds that are caused by the vibrations. Responding as it does to such relations, sound does not like colour mirror existence in repose, but breaks forth like the passionate soul of things, like their animating impulse, or as if it were the immediate manifestation of that most essential character from which all these physical forces are derived as consistent modes of communication. We no longer estimate the hardness, the density, the brittleness, the elasticity of a body according to the force which it exerts or the amount of the resistance with which it meets external forces; but rather in the fulness of sound, in its softness or hardness, in the cutting or liquid and rounded character of the sound do we seem for the first time to discern of what spirit all those physical properties are the children, and what veritable hardness and brittleness, what genuine sweetness of nature and existence, is concealed in the world behind the external forms of forces acting in space. There are many means of intelligence and communication; but even the most perfect will never reach the convincing clearness with which sound comes to us as the natural herald of the inner states of things.

But enough of these examples, which we must leave it to natural feeling to pursue farther. Perhaps they are sufficient

to make it credible that our modes of sensation are not linked meaninglessly to external stimuli; of course we cannot prove that atmospheric vibrations must be perceived as sound, waves of ether as light; but after we know that they are so perceived, we think we understand that the significance attached in the economy of the universe to the undulations of the ether and to the other kind of vibrations is rendered intelligibly in the one case only by the radiant beam, in the other by the reverberating note.

§ 3. We have thus found in human sentience an innate tendency to see in the nature of external things a virtue peculiar to themselves, an immediate worth or the reverse, recognised by our pain or pleasure, but not dependent on their presence. This tendency comes much more distinctly into prominence in a comparison of different contents than in a consideration of one taken by itself, and shows itself here at once not only in the exceeding frequency with which such comparisons are made (such comparison in its deliberate character being doubtless a mark of the distinction between human reflection and the animal train of ideas), but still more definitely in the effort to assign to each individual content a fixed place in the series of those of similar nature, and to apprehend the series itself as an organized system. Herein the nature of the content of sensation supports us in various measure. Thus the tones arrange themselves for us into a scale of parts, whose intervals, affinities, or dissonances we perfectly understand to belong of native right to the world of sound, while the colours less definitely show a similar regulation by law, and the other kinds of sensations afford but a faint echo of this internal and mutual connectedness of individual examples. The power of accurately discriminating most of these distinctions seems to have been denied to the animal world as well as the feeling of their value; even the song of birds, though some of them can distinguish, remember, and imitate harmonic intervals, does not move in them spontaneously, but merely expresses in rising or falling tones, just as in the wanton variety of

sportive motions of the body, the depth and force of their emotions; in this along with the musical beauty of their voices lies the charm of their songs.

Our imagination, besides, systematizes both the content of particular classes of sensations and the universal forms embraced in which they reach us—time and space. It is vain to try to define the idea of both formed by the lower animals; seeing that even in the natural consciousness of mankind we find by no means that idea of them which philosophers are fain to lay down as the correct or the universally human one. For although we very easily allow ourselves to be driven to the recognition of the infinite extent and inherent insubstantiality of space and time, we spontaneously think neither of the one nor of the other. Space appears to us as real extension indefinite in its range; time as an actual current, no matter how long it may go on; but we think we can discern in both an inherent order. Not to the terrestrial horizon, to which they really belong, but to space itself do we attribute the various regions of north and south, east and west, above and beneath; not till it has been so distributed does the space of the universe become real to us, and these fixed directions have to serve as guides to natural movements. We do not call the point whence the sun rises east, in order to distinguish it as something indifferent from other equally indifferent points of space, but from the east as a point of space distinguished in itself from the beginning rises the sun, to sink, as we of course find, in the equally pre-eminent point of the west. And if as the seasons revolve it changes its place of setting, it seems to us for mysterious reasons to miss the point that in itself has a right to be its place. In like manner, time in the unchanging swiftness of its course seems to us to be the common measure of all motions; and, though, did Nature not offer us a series of measurable recurrences of absolutely similar phænomena, we should be unable to divide the length of time and compare the magnitudes of its parts, yet to the view of our imagination the time so won inevitably becomes transformed into the

independent and naturally divided standard in whose sections we distribute the sum of all that is done. In the developing of all these conceptions we are more or less aided by the nature of our experience, and we have had no intention here of denying this gradual development of our ideas of space and time, or of describing them as an inherent possession of human phantasy. But they would not have been developed if external experiences were not met by the tendency of our mind to see everywhere in things, phænomena, events, a fixed inherent measure and right—a tendency slow to be convinced by science of what is often only the relative value of its estimations.

Numbers and measures of magnitude are to us the most indispensable means of testing the regular character of the individual phænomena contained within these two enclosing frames of space and time. It has often been said that man differs from all animals as a being that can count. Such short definitions seldom include what is mainly characteristic of a particular development, and their accuracy is hard to prove. It will be readily granted that the restless reflection with which the human mind makes the relations between its several thoughts the subject of new thoughts, alone renders possible even the laying down of the elements of mathematical science. But at the same time we find that this reflection has not at every stage of culture been carried very far, that the arithmetical achievements of many savage tribes stop at low figures, that for higher numbers they possess only general terms, that consequently their ideas in regard to the mutual relations of the few numbers which they know are but little beyond the bare conception of less and more with which we must credit even the animals. Doubtless even to an animal three men seen are always different from two; doubtless the three, seeing that they are separable and by parting do go asunder, do not even to an animal form one mass or one presentment, but unquestionably they are distinguished as three images, and thus triplicity itself from the duplex image in another case. If this apprehension of differences is counting, then animals count; if under counting we include

the concomitant knowledge that three is to be found in its definite place in an infinite series between two and four, and is derived from these two numbers by addition or subtraction of the unit, then undoubtedly animals do not count, and man alone possesses the capability of applying measure and number to things with such a clear recognition of all their relations. We have, moreover, in our own sensations a peculiarity that yields an analogy for a state of the power of conception incapable of definite comparisons of number. We very easily distinguish the different degrees of strength of sense-stimuli as more or less, and the most delicate differences do not escape us. Our eye follows the waxing brightness of the newly kindled light, our ear the dying away of the sound, and we notice every most trifling distinction of these changing impressions; but there never comes a point at which we could say the light now is double what it was before; this tone three times as loud as another quite similar; the felt degrees of less or more cannot be counted.

Without at present entering further on the development of mathematical science, we may observe how easily and early all sorts of ideas as to relations of magnitude, not only in external phænomena, but also in the forces through which they are produced, find their way into our minds. As a kind of natural Metaphysics guides us in our most general judgments concerning things, so man even on the lowest stages of civilisation follows the dictates of a certain mathematical and mechanical instinct. We find universally in use the simplest machines, the inclined plane, the lever, and many contrivances adapted from them; applied indeed without knowledge of their principle of working, therefore often at a disadvantage, in cases where the details of the given requirement have made it difficult to grasp the whole case. But even so these conceptions suffice to prove the presence of an Idea of internal regularity, which our phantasy everywhere works into the content of perceived phænomena, whose visible expression it seeks in them, and which it strives to establish where it does not find it.

In these words I would call to mind the æsthetic judgment to which our phantasy subjects the forms and events of Nature. Our natural conceptions of things of sense are wholly under the control of Ideas of equilibrium and symmetry, of unity and completeness; in these formal properties seems to us to lie the natural and inviolable law of all things which they must obey, and any failure here offends us as an imperfection in their nature. When one reviews the whole variety of unmeaning gestures, of sportive movements, of graver actions, with which man acts upon and variously modifies his environment, one is indeed sure to find among them a certain rude trait of rather destructive than creative working, a caprice that seems to be nothing but the wanton love of doing with things as one will, put into practice. But very soon this trait disappears, and in place of pulling down comes building up; if the products of Nature are withdrawn from their natural situation and combinations, it is to put them into others, certainly with the intention of improvement, so that in the new and apparently capricious arrangement may be distinctly displayed the innate order and fidelity to law which are prescribed to things by their own nature, but obscured in the confusion of Nature. How early, for example, in the culture of the soil does the impulse become active to level its rugged surface into a geometrically exact plane, and to give it definite limits and divisions by means of regular sharply cut straight lines; how soon follows a preference for a symmetrical distribution of objects, such as is unknown to Nature! It seems to be the duty of objects to occupy the places that in the network of space-relations are allied as favoured points by similarity of meaning and value; through this position they have to establish an equivalent distribution of masses, without the visible expression of which there would seem to be something lacking in the genuineness and reality of the whole grouping. Everything that most vigorously and severely expresses the idea of subjection to law—straight lines, parallel sides, right angles, plane surfaces—in short, all easily surveyable symmetry, is by preference substituted by

this budding artistic sense for the meaningless forms of Nature, and it requires a far advanced cultivation of phantasy to recognise this—nay, a yet higher—harmony in the informal and therefore at first despised outlines of Nature herself.

It would be an interesting task to search out in a treatise of comparative psychological æsthetics the simple forms to the delineation of which men have, under the most widely different conditions of culture, been led by a universal tendency. Wherever sports and dances or any sort of solemn celebration is to be found, man is impelled to divide and arrange time according to some kind of rhythm, space by some kind of symmetrical outline; nothing goes right if it does not coincide with the rhythmically marked points of time, nothing rests rightly if it does not rest in its place in the row. Even where the achievements of artistic imagination hardly go beyond the painting and tattooing of the body, there soon appears a feeling for form distinctly containing a sense of an inner law for every line that is drawn. If the line is curved, the sweep with which it begins is matched by a depth and breadth in the continuing sweep that is necessary for equipoise; parallel repetitions often enhance the effect, and testify to the figure having had no chance origin; if on the right cheek the curve of the line turns towards the right, the same design is not unfrequently repeated on the left side turned towards the left; thus an inborn instinct has taught fancy to secure the sense of equipoise by the combination of patterns alike and yet not identical. Wherever a utensil is to be ornamented, the necessity is first of all felt to distinguish it as a naturally connected and complete whole from a chance fragment of the material; it must not only begin and end, but confine itself as if spontaneously within its own limits. The phantasy is therefore never content to break off a plane at its actual end, but by one or more parallel edges it indicates its gradually gathering resolution to limit itself voluntarily. And where lines in two different directions meet, it fills up their angle by a transition line in order to signify the reciprocal relation

that the different parts of a whole must not lack; finally, where it puts a small ornament as a characteristic specimen of its peculiar power, it repeats this in great numbers in rows, for there is more sensibly an essential meaning in the oft-recurring than in the isolated, and yet at the same time the effect of recurrence is to reduce its value to that of an incidental result.

By all these impulses human imagination is stirred in the very first stages of its development; they guide the child's hand in its childish efforts, and reappear with a heightened consciousness of their significance in the higher stages of art. But, wherever they appear, their significance, it seems to me, is never that of pointing to an inviolable but otherwise unintelligible inherent order in things; the forms which they lead us to realize or to rejoice in as manifested in Nature, are modes of relation of the manifold into the joy of which we are able to enter. I have already expressed the opinion that, just as there is no sense-perception without its share of feeling, so too the notion of a relationship never arises within us without our tasting the special degree of pleasure or of pain which this relationship must confer on the two things between which it exists. We never notice identity without at least a faint recollection of the blessedness of peace, or see contrast without a glimpse sometimes of the hatefulness of enmity, sometimes of the enjoyment that springs from the mutual complementing of opposites; we cannot discern equipoise, symmetry, rigidity of contour, without, as we gaze, being stirred by the manifold pain and pleasure of secure repose, of bondage under fixed laws, or of limitation and confinement. The world becomes alive to us through this power to see in forms the joy and sorrow of existence that they hide; there is no shape so coy that our fancy cannot sympathetically enter into it.

Unquestionably the vividness of these perceptions is added to by our abiding remembrance of the activity of our own body. Some, indeed, of the notions most important to the formation of our conception of things would remain indistinct, if what they symbolize did not offer also a side on

which they can be grasped by sense. Only he who himself moves with toil and effort can know what motion means; had Nature made our limbs the unresisting servants of our volition, so that their movements were never attended by the slightest feeling of burden or weariness, then those movements themselves, in spite of their harmonious adjustment, would be to us but an unintelligible contraction; and all the motion outside us in Nature would but create in us the unintelligible impression that something is now here, now there. We should neither feel ourselves to be the cause of any event, that had cost us no sensible exertion of energy, nor think of introducing into the examination of natural phænomena the notion of kinetic energy, to which, for unsophisticated thought, an association not only with the will, but also with the toil of work very distinctly adheres—associations these from which it must be deliberately purged ere it can be utilized for the purposes of scientific research. As a matter of fact it is not so: every movement which we execute, every attitude in which we repose, has its meaning rendered plain to us by the feeling of exertion or of enjoyment. We, therefore, the sentient beings whom thousands of petty sensations are ever reminding of the contour of our bodily frame, and to whom they indicate what fulness of muscular power, what delicate susceptibility or patient strength, what graceful frailty or iron rigidity, is latent in each several part of that frame—we, thus aided by our sentience, can assuredly comprehend also the alien silent form. Nor is it only into the peculiar vital feelings of that which in Nature is near to us that we enter—into the joyous flight of the singing bird or the graceful fleetness of the gazelle; we not only contract our mental feelers to the most minute creatures, to enter in reverie into the narrow round of existence of a mussel-fish and the monotonous bliss of its openings and shuttings, we not only expand into the slender proportions of the tree whose twigs are animated by the pleasure of graceful bending and waving; nay, even to the inanimate do we transfer these interpretative feelings, transforming through them the dead

weights and supports of buildings into so many limbs of a living body whose inner tensions pass over into ourselves.

§ 4. Not only, however, with this æsthetic enjoyment do we sympathetically expand our sentience beyond the limits of our body, but also, when we desire with practical aims to modify the outer world, we are aided in the calculation of its relations by a similar projection outwards of our imagination, put within our power by the delicacy of our sense of touch and the ease with which we combine past experiences. The skin surface of our body is not at all points so organized that it can, by the production of different local signs, discriminate the stimulations of their immediately contiguous points, and call up in consciousness different sensations answering to them, and consequently an image of their combination, form, and situation. In most regions of the body the stimulated points must be at a perceptible distance from each other in order that the total sensation may not be indistinct and confused; a few parts—among them *par excellence* the surface of the finger-tips — are so constructed that stimuli striking them at a distance from one another of only a fraction of a line, from various local feelings being excited, are distinctly felt as different impressions adjacent to one another in space. These susceptible surfaces the human hand brings into contact with things, and not one merely, but five, adapted to the simultaneous apprehension of a great number of distinguishable points; these five, further, not fixed in one position, but capable, by means of the finger-joints, each of which by itself and apart from the others can move its tip through a semicircle, of being put into the most varied relative positions. And in adjusting not only these changes of position, but the variable intervals between the opened or clenched fingers, we are at every moment guided by a feeling of situation apparently immediate, but really arising out of a number of previous associations of ideas. This marvellous system of susceptible surfaces is finally extended freely into all directions of space by the bendings and extensions of the wrist and elbow, and the still more un-

limited mobility of the upper arm, and there is no part of our own body that cannot be touched by one of our hands. It thus assuredly needs no words to confirm the remark already made in antiquity, that a considerable part of human civilisation depends on the structure of the hand, and on the ease with which it enables us to make innumerable observations, to nearly all the lower animals rendered either impossible or but accidentally attainable by the comparatively imperfect formation of their organs. For the making of observations is not the all-important matter; the progress of culture depends perhaps still more on the way in which they are made. While the one hand is grasping the object, the other examining it and changing its position so as to examine it further, our experimental knowledge is coming into being. As we feel that it is in our power now to bring into prominence the several properties of the object, now to make them retire to the vanishing-point, we are, on the other hand, impressed in the midst of our work by the opposite feeling, that, namely, of an internal orderly connection by which all those properties are held captive under conditions.

Of all living beings, man is the only one that from his natural defencelessness is forced to use implements in order to attain his ends. The capacity for using them depends not only on the muscular power of the arm, but to a very large extent on delicacy of sensation and an extraordinary ease and certainty in associating ideas. If a rod lightly grasped is lying in our hand, so that its motions have some free play, it presses the surface of our skin at various points. The apparently direct feeling which we have at every moment of the position of our limbs, teaches us to judge whether these momentarily pressed spots of our hand can be connected together by a straight or a curved, a vertical or a horizontal line; we ascribe the same form and position to the rod that causes these sensations. If the rod begins to move, the pressed points of our skin vary from moment to moment; for each of these moments our sense-phantasy calculates the direction of the line in which for the time the rod is lying, and at the same time generates

a conception of the point at which all these lines cut one another. If the one end of the rod has met with any resistance and so been stopped, and if only the other end could be carried round in space by the movements of our hand, the point of intersection is that at which the rod is in contact with the resisting object; to this point—really out of reach of any immediate sensation of ours—we transfer our actual feeling of resistance, and now we fancy that we feel the contact of the rod with the object at a distance from us as directly through sense as we do its contact with the surface of our hand. On this double feeling of contact—a beneficent sensory illusion—depends all use of implements; none of them would be pliable enough for us if we were aware merely of its presence in the guiding hand, and not, with a like palpable distinctness, of its action on the material to be operated on. Only on this condition is the stick with which he gropes of use to the blind man or the probe to the physician; pen and brush would be clumsy instruments in the hand of the clerk or the painter, if we did not directly feel their contact with the paper, and if a subtle instinct gradually trained by our experience did not, moreover, teach us to take into account the slight curvatures which these elastic implements undergo from the pressure of our hand, in estimating their effect on the foreign surface. Knife and fork would fail in one part of their office if we were aware only of the position of their handle in our hand, and not at the same time of the incision made in the objects by the blade and prongs; in every movement of the knitting needle we can simultaneously feel the slight tension with which its free end is caught in the thread; in sewing we seem to be immediately percipient at the point of the needle, and we feel how it raises the texture into an elevated point before making its way through with a sudden dart. So, further, does the woodcutter feel, along with the axe's reaction against his hand, its hissing cleaving of the wood; so does the soldier feel his weapon piercing the flesh of his antagonist; so the savage rejoices that he can himself feel the blows which he

deals; he would have no pleasure in another's pain if he did not directly and with the utmost distinctness feel the blows of the club on his back.

I need not further mention what an extraordinary amount of assistance in the investigation of objects we receive from this character of our sense of touch, and how we are thereby enabled to examine, in regard to their shape, hardness, elasticity, and mobility, objects that from their minuteness or their inaccessibility cannot be directly handled. I add but in a word, that not only the hands but the whole body is capable of similar perceptions, though with different degrees of delicacy in different parts, and often with the assistance of other conditions. The unyielding stone below our feet causes a different feeling from the wooden step of a staircase or the rung of a ladder, both of which are by our weight set vibrating with various degrees of amplitude and velocity. By the distinctions of the vibrations we can easily tell whether the round of the ladder is broad or narrow, and we fancy we directly feel its length as well as the points at which its vibrations backwards and forwards intersect each other, namely, their fixed points of attachment in the frame of the ladder. Even whether a pliable rod which we shake in the dark is inserted at one or at both ends into masonry or otherwise fastened, whether we have grasped near the free end or nearer that which is fixed, all this we fancy we do not disover by reasoning—sensation itself seems to contain full knowledge on all these points. As briefly will I lastly point out that these striking phænomena must be taken account of by those to whom the feeling which we never are without, of the outline, the position, and the movements of our own body seems explicable only on the supposition that the sentient soul is diffused or extended through the whole of the body. In the cases referred to the soul extends still farther; exactly the same persuasive illusion that made us before say it was in the finger-tips, makes us now say it is present—percipient and sentient—at the end of the stick, of the probe, of the needle.

Nobody will seriously believe that it is really shed or prolonged, like an electric fluid, into these implements at the moment of use; but if it be granted that this illusion of a sensation taking place outside of our body is the result of a highly complicated chain of ideas, then it must be granted that the illusion by which the soul seems to be immediately present in each organ of sense and each point of the body from which it is at any moment receiving impressions, can be brought about much more easily and by a shorter chain of such intermediate ideas. We therefore look on the feeling of the omnipresence of the soul in the body as a delusion, but a beneficent delusion due to Nature's care for us; a like carefully framed delusion is this seeming immediate sensation beyond the limits of the body; by it alone are we trained to a living apprehension of outside things and their changes, and brought into intercourse with them in such a manner as is indispensable for the growth of our conception of things. But we will now try to show that we reap still further advantages for our development from this character of our sentience.

The preceding examples were drawn from the practical use which we make of implements in order to modify external objects; others of kindred nature lead us to the means which man employs for the sole purpose of embellishing his own life. We speak of dress, to which we alone are impelled by an original instinct, that of the ape being merely one of imitation. We speak not of other points of view, which either do not deserve to be examined or must stand over to other opportunities, of the use of clothes as a protection against the inclemency of weather, of the sense of modesty that chooses them as a covering; our inquiry is exclusively as to the source of the pleasure which they and other kinds of decoration afford to the human soul. It lies by no means only in the gratification of the vanity that seeks to be admired by others, but in the heightened and ennobled vital feeling of the wearer himself. The colours and the metallic lustre of the finery alone minister to the craving for outside admira-

tion; in other respects our pleasure in ornament and dress is derived from the sensations which both excite in ourselves.

Every one knows that to our feeling it makes a difference whether we grasp and raise a rod of equal thickness throughout in the middle or towards one of the ends. In the first case it lies horizontal in our hand, and so long as it is at rest we feel only its weight, not its length; we must shake it before we can guess this also from the character of the vibratory motion set up in it. In the second case we feel that the rod inclines to lie in a sloping direction in our hand, and a turn is required in order to bring its heavier end into a horizontal position. Now, as through this preponderant weight the one arm of the rod is constantly working downwards, constantly in reality falling a little, and ever again being raised by slight muscular efforts, in this case we generally know from the first pretty well what is the length of the pole. If we balance the rod in a perpendicular position on our finger-tip, at the moment when it is really in perfect equilibrium we are aware only of its weight; as soon, however, as the upper end swerves, and we are forced to make a movement of the hand in order to keep it still upright, we at once fancy that we have an absolutely direct perception of the height of the rod and of the distance of its free end from the point of support. If a ball is suspended by a thread from our hand at first motionlessly and vertically, here too only its weight, not the length of the thread, is perceptible; if we, however, set it in circular motion, so that the thread exerts pressure with varying degrees of tension and velocity on different points of the hand's surface in a regular sequence, we now imagine that we are directly aware of the length of the interval at which the ball is revolving, as well as of the radius of its rotating circle, and of the velocity and weight with which it moves in the circumference of this circle. If with the finger we firmly press upwards on the bottom of a hollow vessel, perhaps so that we balance it thereon, having the hand inserted, we become aware of any contact with the vessel, in whatever point it be, and we form a judgment, not only as to the direction whence such a blow comes to the vessel, and

the distance of the point struck from the surface of our arm (consequently, with great accuracy, as to the size of the vessel), but we also discern from the nature of the vibrations produced, which are transmitted to our finger-tip, the hardness and elasticity of the material of the vessel; an experiment which every intelligent housekeeper is in the habit of making when she buys pots and pans. The mechanical theory of all these processes is to some extent complicated, and very protracted would be the psychological analysis of all the associations of ideas from which these instinctive calculations proceed with the certainty of a direct feeling; on the other hand, there can be no doubt of the effect which they all have in changing our vital feeling. Wherever, in fact, we bring a foreign body into relationship with the surface of our body—for it is not in the hand alone that these peculiarities are developed—the consciousness of our personal existence is prolonged into the extremities and surfaces of this foreign body, and the consequence is feelings now of an expansion of our proper self, now of the acquisition of a kind and amount of motion foreign to our natural organs, now of an unusual degree of vigour, power of resistance, or steadiness in our bearing.

The earliest stage of these feelings, to mention a few examples, is brought about by coverings for the head and feet, both peculiarly adapted to add something, at least apparently, to our height. Every form of head-gear represents in the perpendicular that passes through its centre of gravity the above-mentioned rod; its value for feeling is enhanced with its height and partly with its form, namely, when the result of the latter is a distribution of bulk such as perceptibly moves the centre of gravity upwards, and at the same time, in the swerve from the vertical direction, brings about a strong inclination towards one side that must be counteracted by a balancing effort of the muscles. The head-gear is of no use till there is a threatening of this want of balance: in equilibrium it is only a definite amount of weight; hence one intentionally puts on one's hat somewhat aslant, in order that one may always be aware of the distance between its highest

inclined point and its plane of support, the head. Thus arises the pleasing delusion that we ourselves, our own life, and our strength reach up to that point, and at every step that shakes it, at every puff of wind that sets it in motion, we have quite distinctly the feeling as if a part of our own being were solemnly nodding backwards and forwards. Evidently, therefore, one feels quite differently in a cylindrical hat that encourages these emotions from what one does in a cap, the raised peak of which would perform the same office very imperfectly; and we come quite to understand the disposition (showing itself early and in low stages of culture, and perfected afterwards in higher ones), by means of high erect helmets, bearskin caps, and lofty coiffures, to fortify the consciousness of the wearer with the feeling of a majestic upward extension of his personality, as well as to increase the fear-inspiring or respect-inspiring effect of the figure on others. It would take too long to analyse the specific feelings yielded by other broader and lower forms of head attire; obviously they do not encourage pride, but call forth the feeling of a weighty task being laid on shoulders not adequate to meet it. Of kinds of chaussure I mention only high heels, which again represent the rod, as appears in stilts, which they are in miniature. Heels and stilts afford a quite distinct feeling of double contact; we feel their tread on the ground as well as their pressure on the foot, and at the same time can correctly enough estimate the distance between the two places of contact. Thus, as can be understood, arises a lively feeling, not only of being exalted above the ground, but of filling this whole space upwards with our own increased stature, for we do not lose our sense of the ground beneath us. It may be added that every stick which we use, not as a support, but as a toy to be carried in the hand, awakens the same consciousness of a prolongation of our personality to its extremity, of whose distance from and contact with objects we are directly aware. Rods of office have therefore in various forms always been emblems of power.

The second class of these feelings we derive from all hanging

and waving drapery, which, after the model of the ball set in revolving motion, agitates the surface of our body by a charming variety of extensions in different directions, and causes us to feel as if we were ourselves present in the gyrations of the freely-floating ends. When children fasten on to themselves the tail which Nature has denied them, they do not merely wish others to see it, but as its point trails along the ground they feel its contact with the soil; when, as they run, it flutters in the air, the longer it is the more distinctly do they feel these flutterings to its farthest extremity; they, too, thus have something of the same enjoyment of an existence prolonged in this direction, as if this new organ had really grown to them. This form of the feeling is more especially capable of tasteful poetic refinement, and has actually in all ages formed the ideal of the art of the toilette. Has not Nature herself adorned our head with floating hair? To gather this into single curly, wavy clusters, and to encompass the seat of thought with a peculiarly arranged variety of exquisite sensations of motion was naturally the first task of fancy, and it would not be impossible from the style of headdress preferred by particular nations to draw conclusions as to the character of their imagination, and as to their preference for severity and stiffness or for greater geniality and freedom. The mussel-shells, the glass-beads, the stones and bits of bone which the Indian squaw strings to hang and jingle on her wrists and fingers, the earrings, the floating, hanging ribbons and sash-ends of our maidens, the light lace, the heavier knots and tassels of uniforms, massive chains and crosses, plumes, watch-appendages, waving veils and mantles, all these means are applied by ingenious fancy in order not merely to expand our existence on all sides, but to create the pleasing delusion that it is ourselves that float and wave and sway in all these appendages, rising and falling in rhythmic cadences. And where there actually is no sensation it even supplies this lack, and in the delicate tissue of hanging lace makes us think we hang and take part in its swaying motion.

The last form of those to which we referred is that assumed

by our feelings under the influence of clothes in the strict sense. The greater or less tension and firmness possessed by the material in itself, or due to its cut, is transferred to us as if it resulted from our bearing. A corset resembles the above-mentioned hollow vessel, only that it is filled by the body, not at one point merely, but throughout its whole extent; on every occasion of contact with this stiff case the tension and firmness of its framework is felt exactly as if both properties belonged to our body; unquestionably this also is a means of imparting the feeling of a more vigorous and elastic existence. With every tight girdle, every bracelet, there is to some extent a recurrence of this feeling; the first pair of trousers fastened by braces fill the boy with pride in the manly vigour of his existence, even though the ideal of his wishes remains the steel suit of armour, from the weight of which he turns away his thoughts to revel all the more in the majestic feeling of irresistible, unbending straightness which it holds out to his view. With this sense of firmness, which she does not quite despise, the maiden mingles the feeling for easily moved and finer garments, for as a matter of fact the fragrant folds of the light gauzy stuffs with which she drapes her form are not merely intended to be graceful in the eyes of others. On the contrary, the wearer herself is by feeling directly present in all the graceful curves that with feather weight touch but a few points of the skin, and yet through these points excite the most distinct sensation of the breadth, lightness, and softness of their sweep. Nay, even the pleasure afforded by such a sight is derived far less from the pleasing effect of the drapery which we see than from the fact that we can transport ourselves by thought into the imaginative, joyous, or dainty vital feeling which the myriad petty impressions from the garments must infuse into the form which they conceal. From the same reason is it, lastly, that an artificial replacement of lost *embonpoint* deceives, not only others, but also the person concerned; for every stimulus that strikes these false dimensions is by virtue of the double sensations of contact felt as if it had actually reached the living body.

§ 5. After having by the laying down of these three fundamental laws performed for the exact science of dress the same service as Kepler for astronomy, I make over to others the further scientific profit therefrom accruing, and turn to the examination of several phænomena in which the same tendency here observed to alter with æsthetic wilfulness directly given relations of Nature and enhance their value, is exhibited in a graver form. In all actions, from the simple movement of the body up to complicated social arrangements, is shown the disposition to put in the place of the natural course of events a ceremonious order having its origin solely in the will of the subject, and yet claiming to regulate them as they must be.

Graceful harmony in motions of the limbs is not a result of culture, nor is it to any considerable extent affected by the worth and character of the intellectual life; it is wholly determined by the mechanical laws of motion not meeting with resistance as they may do in the case of stunted bodily structure. Not only does every animal living in a natural state of freedom develop with perfect want of constraint the grace peculiar to its kind, but every puppet, if its limbs were attached to its body with free scope and no retarding friction, would display in its motions, from mechanical laws alone, all that rounded sweep and that harmony in the play of the different limbs which we so often admire in the living body as the expression of soul. There it does become the expression of soul, but only because there is a soul in whose varying inner states are the key to this mechanism and the peculiar beauty of its symmetry of motion. So long, therefore, as favourable conditions of life preserve the natural liveliness and activity alike of body and of soul, we find, even without any notable degree of mental culture, a fully developed gracefulness in the movements of the body. This is not so where an ungenial climate makes the limbs more awkward, or where the energies of the sentient soul are blunted by a narrow monotonous round of experience, or lastly, where the division of industrial labour imposes the constant practice of a uniform

series of movements. Then this beauty is lost, partly from the growing resistance which the soul's impulses meet with in the stiffened limbs, partly from the growing indifference of the soul and its consequently scanty supply of such impulses. Hence the contrast between many happy tribes of the Pacific Ocean with the beauty and elasticity of their movements, as described for us by their first discoverers, and the inhabitants of the Arctic regions weighted by disadvantages of climate, as well as many Europeans grown clumsy under the burden of monotonous labour. When advanced civilisation recovers gracefulness in bodily movements, it creates nothing new, but merely removes the obstacles that hinder the nobleness of the natural mechanism of motion. But before it wholly returns to Nature it passes through the stage of affectation. Among all the nations with whose life we are intimately acquainted, it has first of all introduced a code of manners, a style of demeanour, that got the upper hand of the natural tendencies to motion, here took off somewhat of their vivacity, there added gestures that have no ground in the organization of the body and in the predetermined manner in which it gives expression to the mind's states. Thus here, too, man thinks that this arbitrarily chosen deportment is something better than what the simple dictates of Nature teach.

The animal seeks to gratify his corporeal impulses at once, and as they make themselves felt, and knows no other aim than that of taking off the edge of appetite. Man has no sooner escaped from the pressure of extreme need than he makes each of these cravings the occasion of a ceremonial celebration. While the beast consumes his food at all times and in all places that afford his greed immunity from interference, man prepares his meals. Even the time of the repast is not to him a matter of indifference; hunger is not what fixes the moment of eating, but the day is for the life of man a marked-off portion of time with its own internal arrangement; it is in keeping that one craving should be gratified at one fixed hour, another at another. Then he has company at his repast; it is not merely a matter of appeasing appetite

but through the joint participation of several, even this proceeding has to be recognised as an action that in the connection of all human life has its fixed place, significance, and justification. How soon do we find the beginning of settled life, the establishment of a home, the development of worship, followed by a multitude of elaborate ceremonies designed to bring, not only the simplest proceedings of the day, but all the more important periods of existence, as parts into a well-framed whole of human life! Among the lower animals, generations live on, are born, multiply, grow old, and perish, and the idea never occurs to them to survey this changeful life and mark off its periods with a consciousness of their significance. On the other hand, wherever human races have not quite degenerated in consequence of the exceeding hardships of their life, we find the birth of the child, his attainment of manhood, marriage, death, and burial, all distinguished by ceremonies; the celebrations often but rude—nay, it may be the rites repulsive, still indicating the feeling that in human life nothing takes place rightly and as it should, if it merely takes place, if it is not recognised and set in its fitting place in the succession of events by the participation in some ceremony of a community, a society, a family. A person is not rightly born, does not rightly die, if the symbolic solemnities handed down by custom and tradition are not grouped around these natural events. The higher we ascend into the past of a nation, the more rigorously may we say we find every incident of life avouched in this way by accurately prescribed forms, and a glimpse of the mode of thought of the people even in our own time shows at once how persistent still is the tendency to look on no event, even after its content has been fully realized, as really complete until it has been attested by the seal of some traditional ceremony.

And here, for the present, we break off this subject; what further belongs to it cannot be brought into an examination of human sentience. Of that alone I meant here to speak, bringing into relief the characteristic feature which alike in all its various exhibitions seemed to form the properly human

element. Whatever our sentience may receive, it receives not as a mere indifferent content, and just as little as merely what is to itself pleasing or unpleasing, it realizes in it a peculiar excellence through which it fills its place in a significant order of phænomena. Whatever man is impelled by instincts of sense to do, he does neither under the pressure of mechanical necessity nor merely for the gratification of his appetites, but he gives to his action a form in virtue of which it takes its place in the special system of an order of life that ought to be, and yet is not by Nature.

Let us now cast one more glance over the whole group of details with which we have been occupied, and we can correct a poetic lament that is still often renewed. Wide regions of sentience with all their enjoyment seem to be closed to our organization. We demand to know the agreeable sensations of the fish as it swims, the joy of the bird as it cleaves the air, and from a loftier height surveys the heights of the earth. To me it seems that the poetic phantasy by asking such questions shows that it is really in possession of the answer to them. We can in fact so completely transport ourselves into these situations of our animal kindred and enter into the nature of their enjoyment, that to know it by actual sensation, while it might increase the intensity of the impression, would not make more distinct to us the distinctive character of this foreign delight. Far from being poor, human sentience is the intensest and the richest. The swimmer and bather knows by experience how the wave swells and bears him along and gently washes his limbs; but, saved from the terrible monotony of a life filled throughout its whole duration by these impressions alone, we may pity the fish whose lot he for a moment envies. And after all, in the prospect from mountain summits that we have reached by laborious exertion, in the consciousness that the manifold conformations of the globe present obstacles to our locomotion, is there not a far more solid enjoyment than the comprehensive glance, won without any trouble, of the bird that soars from peak to peak as if there were no difference between them and

the valleys. Let us then take to ourselves the comfort that in our direct sensations, and in what is added by our imagination from its entering into every form of existence in the outer world, we have a goodly sum of pleasure, greater than has fallen to the share of any of the animal species.

# CHAPTER III.

## SPEECH AND THOUGHT.

Carrying off of Excitation by Movement generally—By Change of the Respiratory Movements—The Voice—Articulate Sound and the Organization of Sounds—Corporeal Basis of the Capacity of Speech—The Meaning of Words—Thought—The Parts of Speech—Syntactical Forms of Language—The National Logic of Language—Dependence of Thought on Speech—Importance of Names—Substantive Forms to which no *Things* correspond—Order of Thought and Order of Construction in a Sentence—Silent Speech—Intuition and Discursive Thought—Conversation.

§ 1. IN whatever may consist that state of excitation into which the nerves of sense are brought by external stimuli, it at any rate presents a definite amount of some physical motion of masses that by the Law of Persistence cannot cease of itself, but must either be stopped by some definite resistance or reduced to zero by distribution over the environment. If the organs of sense are designed to be to us a medium of knowledge of the outer world, it is necessary, in order to our receiving this unadulterated, that the tremor produced by the impression of one moment should rapidly be so far mitigated as not to counteract the impression of the next moment or blend with it as an adulterative element. So long as the physical stimuli by which the senses are acted on are but inconsiderable amounts of motion, this perpetual effacement of their effects may be accomplished partly within the organ of sense through the uninterrupted processes of the transformation of matter, partly through the generation of the sensation itself. For even sensation, as a newly manifested internal phænomenon of the soul, which as a substance stands in a mechanical relation of reciprocal action with the elements of the body, cannot merely arise on occasion of nerve-stimulation, part of the latter must be utilized in its production. The stimuli of light and sound constantly acting on us keep within

these limits of intensity, and we are not aware of any special corrective agency by which their influences require to be adjusted. If, on the other hand, external impressions reach a painful degree of strength, we must expect to find a corresponding provision of means for their removal. Now, as it is the office of the nerve-filaments to transmit to the brain the stimulations received at their extremities, it is not to be supposed that this provision can consist in any sudden hindrance to transmission, or in any considerably increased distribution of the stimulation in all directions. Both are unfavourable to the natural function of the sensory nerve, and we may look on it as universally characteristic of the organization, that it meets threatened disturbances not with new and unusual means, but with means of a type that has already appeared in the healthy condition. So long, then, as the intensity of the stimulus does not directly injure the nerve, and thereby, of course, preclude the further effects of a too violent impression, we assume that the excitation is transmitted to the central organs and dissipated by there producing a larger proportion of after-effects, the fainter traces of which may be discerned even in the ordinary degrees of stimulation.

Three roads are open for the further extension of the stimulation in the brain; for the sensory nerve finds there—(1) other sensory nerves; (2) sympathetic nerves; (3) motor nerves. The transference of its excitation to other sensory nerves, consequently the production of an accompanying sensation in other than the actually stimulated parts, must be confined within a narrow range if the purpose of sentience, to bring about somehow a knowledge of the outer world, is not to be too much restricted. As a matter of fact, the strongest stimulation of one organ of sense does not produce any distinct stimulation of another; excess of light produces no sensation of sound, a loud sound no sensation of smell; only the general sense shares in the disturbance through the change effected in its states. A transference of the stimulation to the vegetative filaments of the sympathetic system would be more advantageous, because among the manifold functions of these

nerves there are many that without any detrimental effect on life can be for the moment increased in amount, and by which, as well as by many alterations in the process of material transformation due to them, the disturbance of the organism can be harmlessly carried off. The phænomena of fever offer an example of transference of excitation in this direction. But in the natural course of life the sensations are specially designed to serve as incitements to movements by which the soul somehow subjects perceived objects to its elaborating processes. So many reasons render necessary the close connection of sensory with motor nerves and the excitation of movements by the direct action of the former, that we cannot wonder if even painful disturbances are for the most part counteracted in this way—always kept open for the purposes of healthy life — viz. by a communication to motor nerves, consequently by means of the production of motion.

Hence it is that we find all violent pains in the living body, powerful irritants even in decapitated animals, call forth movements at first in the immediately affected parts, as the impression becomes stronger throughout the whole body. Sometimes there comes to be a changeful succession of these, a tremulous agitation of the whole body—sometimes, where a strong effort at patient endurance is made, a rigid, persistent, exceedingly violent contraction of a single group of muscles is brought about, in order that in the surplus energy here expended the internal stimulation may have an outlet. So the sufferer grinds his teeth or clenches his fists, or straightens his back and stretches out his aimlessly stiffened leg. At last the persistent or increasing irritation withdraws these movements from the influence of the will and exhausts itself in incessant spasmodic attacks. Mental agitations from within act upon the nerves in the same fashion as the sense-impressions coming from without do here. In view of the reciprocal action between body and soul, we cannot look upon these two processes as running their course exclusively within the latter and requiring special causes to make them assume a corporeal form; from the first they are a certain quantum of effective

motion, whose impression on the body, instead of needing to be brought to bear by special means, must by special means be prevented.

§ 2. It is unnecessary to describe at greater length the general state of disturbance and the half convulsive attitudes into which the body is thrown by the pressure of mental emotions. One group of special importance must, however, be singled out from the multitude. Where the mental agitation contains likewise a motive to a particular action, gestures make their appearance which either copy that action in miniature or exhibit it in its first stage. *E.g.* the gestures of anger when its object is in sight or at least known. On the other hand, where the mind is helplessly tossed to and fro in a sea of pain or pleasure, the internal agitation finds vent chiefly in the most various changes of the breathing, or rather limits itself to this mode of expression, which is never wholly absent in the already-mentioned contortions. In joy, in grief, in surprise, respiration becomes unequal, accelerated, and deep, or rapid and short, or remittent, irregular, more like a sigh; with emotion is associated the tremulous movement that takes the place of the quiet, uniform activity of the respiratory muscles and precedes an outburst of sobbing; anger and rage for a moment keeps back the deep-drawn breath, that, after the fashion of all assailants, it may meet its object with firm-braced chest; the fury that has no object on which to expend itself begins to snort, intentionally executing and exaggerating respiratory movements that at other times go on instinctively and imperceptibly; finally, in laughter, delight in a harmlessly absurd incongruity breaks out in spasmodic working of the muscles of respiration. All these convulsive movements have the conspicuous peculiarity, that nothing is effected by means of them; with air for their material and no aim at any product whatever any more than a direction towards any definite end, they are the purest expression of mere excitement, pleasurable or painful. Even as such they would afford the onlooker a vivid and faithful picture of the internal state; but Nature has attached the vibrating bands of the vocal

ligaments to the system of the respiratory organs, and thus gives an opportunity to the faintest ingredients of this aimless disturbance to embody themselves in the audible tones of the voice, and to make themselves heard at a distance in the outer world. So in the animal kingdom we have the sound of pain and the sound of joy—infinitely poorer in definite indication of objects and actions than the rudest gesture, in expression of the hidden emotion itself incomparably richer than any other means which living races could have chosen for mutual communication. For as a photographic likeness is the exact reproduction of the form, so is the voice in its pitch, its peculiar timbre, and the degree of steadiness, strain, and loudness, the direct audible likeness of the innumerable minute and finely-knitted impressions produced by the emotion of the mind on the mobile masses of the body.

The view has been held that speech was an invention, in such a sense that out of several means of communication men deliberately chose this; but there certainly is no fear of its being revived in these days, and the foregoing remarks show how, on the contrary, by a naturally predetermined physiological necessity, the soul is compelled to express in tones at least the general character of its inner states. But we are still a long way distant from human language, and modern theorists who content themselves with admiring the organic unity and connection of the thought-forming phantasy and the sound-forming voice, overlook a great number of intermediate links, some of which it is quite requisite to mention.

Nature has bestowed voice on may races of animals; many develop it into song, none into speech. The question arises, what is the cause of this? Is it that the animals are without any matter which they have the desire to express, or that they are prevented from doing so by some physical obstacle? However the case may stand with the content of animal consciousness, I cannot be one of those who answer the latter question in the negative, for I am convinced that defects of organization

would in any case prevent the development of the animal voice into speech, and that on the other hand man's superiority rests partly on the better organization peculiar to him. The anatomical investigation of the vocal organs which formerly led Rudolphi to make the assertion that the absence of speech in apes was at all events not determined by any deficiency in their organs, can at most prove that all the conditions of vocalization are present; and the most ordinary experience makes it needless to prove this. But speech develops itself out of voice through the articulation of sounds; and in the animal kingdom we find this either not at all or only in the most fragmentary form.

Taking as a basis of comparison the human system of vowel and consonant sounds, we may note as a remarkable fact, that while some birds can imitate our words, even this mechanical capability has never been observed in any mammal. And yet the formation of the cavity of the mouth, the teeth, the tongue, the palate, in this class of animals far more resembles the human than that of any bird. It may further be added that among the mammalia different particular consonants and vowels are actually to be met with divided among different species, though in the same species they are never united into a compound speech-sound. The dog says *r* and guttural *ch* very distinctly, the cat is acquainted with *f*, cows and sheep with nasal *n*, and we can hardly doubt that most of the fixed positions of the mouth on which our articulate sounds depend, would be mechanically possible to animals if only there were for their muscles an impulse to produce them, and for their phantasy an impulse to combine them together. But even the ape, with its propensity to mimicry, remains dumb; the dog, attentive as he is to the purport of our words, makes not the slightest attempt at speech; only birds repeat sounds made in their hearing, but by nature they too keep to the inarticulate tones and melodies of their kind. Now wherein lies the obstacle? In my opinion, in these two things:—1st, defective sense of hearing; and 2nd, want of an organically

constituted harmony between ideas of sound and the muscular movements that are requisite for the production of sounds.

Even the highest achievement of animals in the direction of voice-development, the song of birds, is remarkable for a total want of harmonious tone-relations. The melody advances in the most irregular fashion; sometimes lingering on one note with all possible purity and with bewitching quality of voice, sometimes running through a series of sounds, in each of which an indefinite number of rapid transitions from one pitch to another are combined into a kind of chaotic noise, sometimes, finally, continuing through quarter-tones or quite inharmonious intervals. There is no reason to suppose that the sequence of two pure tones forming a concord is impossible for birds, for they do occasionally make it; there is rather, evidently, an absence of any sensuous motive for preferring this sequence to any other. I am therefore of opinion that birds' ear and phantasy lack susceptibility for harmonic intervals, and that the scale seems to them only more or less in the matter of pitch, while the qualitative relations through which to us two tones at a wider interval in the scale yet may be more nearly related than two close together, are lost upon them. This defect would not be a decisive obstacle to speech but for its association with another which we also meet with in the voices of all animals. All are aware of the difficulty there is in expressing their sounds by a written notation; although in the growling bark or snarl of dogs, when we think of it as divided into infinitesimal intervals of time, we have almost every one of these intervals filled with a particular vowel or consonant, yet the animals hardly ever keep their mouth for a measurable time in one position, and every definite sound has no sooner been uttered than it passes into another. While, then, the voices of dogs or oxen sound to a great distance, they never emit one unequivocal vowel, but from moment to moment hover between one and another. Here, too, I cannot think that there is any muscular incapability to prevent the retention of the pure sound; rather I believe that to the ear of animals

the distinctions of articulate speech-sounds, though not incapable of being perceived, have no such emphatic æsthetic value as to lead to any importance being attached to them. In this connection I must introduce a general remark in regard to the sound-material of speech, which forms a continuation of the reflections already made on the peculiar character of human sentience.

Were we to try to put into characters all the vowel-sounds that have been emitted by individuals or by nations, we should require a countless multitude of signs; but it is at once apparent to our natural feeling that this multitude of different sounds have not all a uniform value. On the contrary, there stands out from among them a very small group as pure primitive vowels, distinguished not only by being recognised as simple elements in our now fixed written language, but by having in themselves an obviously distinct character and a special value. Between these fixed points, *a*, *e*, *i*, *o*, *u*, we insert all other vowel-sounds as deviations, approximations, obscurations, and mixtures, just as we reduce the endless variety of tints to a small group of simple primary colours. Thus to our ear the innumerable vowel-sounds are by no means a vague confused host, that we might increase by the addition of new vowels at any moment when we either gave ourselves trouble to put our mouth into an unusual attitude, or chose to suppose that our vocal organs were differently constituted. The group is a closed one in spite of the endless number it contains; for there are fixed points between which all other conceivable modifications must take their place. The vowels then stand before our imagination as a system, a regular series of intrinsic value, so that our voice in pronouncing them does not emit arbitrary sounds, but subjects itself to the inherent necessity and regularity of a scale which would be such even if no one had ever embodied its parts in speech. In spite of the obscurity still hanging over the physical conditions under which the several vowels arise, the supposition is probable that in the five simple ones the manifold reverberation of the sound-waves of the voice within

the cavity of the mouth produce a particularly simple, regular, and symmetrical development and intersection of rarefaction and condensation, so that the total movement of the particles of air, could it be made visible, would form for each of these vowels a figure whose formula could easily be stated. Hence it may arise that these sounds alone appear to us pure, genuine, normal, and simple, and that our ear seeks to derive all others from them as compound or mixed. Now this susceptibility for such an objective truth in sounds is what I would assign to the human sense of hearing in contrast to the animal; and the more delicate this power of discrimination the more will sentience strive to reproduce these sounds, through the voice as their productive organ, and to reduce and articulate the chaotic sum of possible sounds into these sharply separated elements.

It would be more difficult to prove the same in regard to the consonants; but a glance at their application in languages shows with what delicacy their mutual affinity is felt, and I think that one would perceive this affinity immediately from their sound, even were one not clear as to the analogy between their modes of origination. Palatals are by every one, apart from any theory, discriminated from others as a connected group of sounds passing into one another. Now, I do not believe that any speech could be formed for the expression of thought were all this otherwise; did not the whole material of sound stand before us as an objective system of tones, each several member sharply discriminated from the others and yet allied with many by natural affinities, each one pure and distinct, yet capable of grouping around itself a multitude of proximate modifications. From this point of view it is intelligible that human speech has not adopted a considerable number of sounds which we can unquestionably make, but which are too indistinct in their relations of affinity with others to be utilizable material; it is further not improbable that speech in the earliest stage of its growth was content with the three vowels *a*, *i*, *u* as the most sharply discriminated and those which alone are perfectly pure, and

that not till later did it recognise *e* and *o*, which, without deliberate attention, are never sustained pure, but pass into *i* and *u*. I do not mean that only those three have from the first actually been uttered; on the contrary, that strange phænomenon in speech-consciousness, of sounds and words being different in name from what they are as spoken, may have showed itself at an early period—curious conflict that it is between the conception of the sound as it by rights must be, and the facility of uttering it. It seems to me natural, however, that in its first exercises this working phantasy should most readily exhibit its arbitrary legislation, or recognition of law, in the harshest and sharpest contrasts; a phonic system so weakened and moving by preference among such minute distinctions as, for instance, the English language, at present can belong only to a time that puts together breccias and conglomerates out of earlier original formations.

My original intention, therefore, was to show that by the human sense of hearing are discriminated distinctions in sounds which to that of animals are not indeed as zero, yet are not perceived in the full significance of their mutual relations. This by itself would explain the absence of spontaneous production of these sounds; but I added above the conjecture that, besides, the difficulty of producing them is increased by imperfection in the mechanism by which the voice is moved. The process by which all voluntary movements are executed is, as we have already (*supra*, p. 283) shown, concealed from consciousness; the image of the new position to be effected, and the remembrance of the peculiar modifications of our general sense by which on former occasions its *execution* was accompanied, are the sole two points appearing in consciousness, to which the carrying out of the movement itself is subsequently attached by means of an unconscious and automatically working mechanism. In the case of speech, the auricular image of the sound to be produced takes the place of the ocular image of the movement to be performed. To the actual utterance of the sound it is now indispensable

that along with this auricular image — which we must conceive not as a mere internal psychic state, but also as a slight stimulation of the auditory nerve thence proceeding— be associated by an organic arrangement the impulse to a distinct muscular movement, namely, to that complex movement by which all the organs concerned in the production of a sound are moved into the necessary relative situations. Where this organic provision is lacking, the conception of the sound may be present, but it will not be manifested in movements of the vocal organs. Now, I think that in general there is such an arrangement of the nerves in all animals endowed with voice; but in man alone probably is this organ so exquisitely developed, that there is not only a power of discriminating between the most various sounds as to their pitch no less than as to their melodiousness and timbre, but also a finely-organized adaptation of the motor nerves to the reproduction of all these peculiarities. This is what might be called a corporeal organ of speech; for the body's contribution to the formation of speech cannot extend certainly further than to placing at the soul's disposal this pliable medium of expression, and to inducing it to make use of the same by means of the already mentioned physiological impulse. Physiologists seem, in fact, to have been so fortunate as to discover this organ in one of the anterior convolutions of the cerebral lobes—injury in this spot being followed by aphasia, *i.e.* want of power to make the desired speech-movements follow the conceptions of sounds.

When we compare the training to speech of deaf mutes with the training of parrots, we find that one and the same result is reached from two different starting-points. The former are deficient in conceptions of sound, but their organs of speech are constituted like those of their speaking teacher; by means of their human capacity of attention they can therefore be brought by careful and laborious training not only to form a conception of the particular movement of these organs that corresponds to a seen character, but also to execute this movement and produce the required tone. Now,

the feeling of movement experienced by the deaf mute during utterance forms for his memory in future the starting-point which his consciousness first repeats on meeting again with the character, and which then is followed with mechanical ease by the renewed execution of the movement. Of course the modulation of speech so acquired will never quite lose the harshness proceeding from the want of a perception of the produced result. The bird under training, on the other hand, has the conception of the sound, but externally his organs are so unlike those of his human teacher that his animal intelligence finds the chief difficulty in guessing how the latter produces the sound, and how he himself must manage his differently constructed vocal organs in order to produce the same. Obviously this can be done only if the bird's organization is such that the tone-conception, in so far as it is at the same time stimulation of the nervous tract, acts directly on the vocal nerves, and at once effects for the bird what he could not of himself bring about. To the human child only this second mode of learning to speak is natural; it learns words not by watching the mouth, but through its vocal organs being directed by its conception of sound. Two things are remarkable: the extraordinary interest with which the child devotes himself to this working of his organs of motion, and at the same time the trouble which it costs him to become fully master of them. At a time when the motion of the other parts of the body is far behind the agility already attained by animals of the same age, there awakes—generally along with pantomimic movements—the effort to talk by means of the most marvellous curlings of the lips, contortions of the mouth, and movements of the tongue; while usually the power of moving the palate and back parts of the cavity of the mouth is acquired later. By observing these phænomena, one can obtain ocular evidence of the working of a physiological impulse evidently here impelling the inner states of the general sense into this particular form of expression. And the difficulty which, nevertheless, is met with in bringing these movements

wholly under control in no wise tends to weaken our conviction of an organic foundation for them. Just as the eyes, whose whole structure undoubtedly is adapted for the regular uniting of the rays of light, do not perform this office immediately after birth, nay, are scarce capable of discerning a faint gleam of light, so probably the delicate perception of distinctions in tones and sounds is not from the first present in perfection, but is gradually developed out of an indefinite susceptibility to sound in general. In proportion as its delicacy increases, the instinctive working of its stimulations on the vocal organs also becomes more distinct.

I close these observations on the share of the body in the formation of speech with a summary glance over a field that the wider scope of these inquiries does not permit of my examining. That the bodily organization should have a share in the conditions of speech will not seem unnatural to those who bear in mind that we are here dealing not so much with an operation of the mental energy itself as with the manifestation of this operation in the form of a physical phænomenon. Here the mind is not at home, and it suffers no loss of dignity by having its medium of expression, sound, and the power of using this medium conferred on it without any choice of its own by independent bodily impulses. In the further development of speech traces of this physiological influence may still be discerned in some of the phænomena. Not merely the general selection of the sounds utilized in the language of any particular people may proceed from minute peculiarities in the structure of its vocal organs, again in part perhaps dependent on climatic conditions (*e.g.* we find widely diffused among the inhabitants of mountainous countries a preference for the harsh palatal sounds, and among dwellers in islands for dental consonants); but also the modifications of vowels and consonants in the inflexion and composition of words suggest the idea of their being in part at least the result of organic conditions. But the precise nature of these it would be very difficult to state. Already we tread on doubtful ground in asking whether the tendency to these

alterations in sounds is acoustic or phonetic — I mean whether they are made in order to offer the ear a euphonious balance in the distribution and succession of heavier and lighter sounds, in harmony especially with the accentuation, so that the complete word may float before the sense of hearing like a correctly drawn and proportioned figure; or whether it is mainly the convenience of the vocal organs (which do not slip with equal ease from every position into every other, and cannot repeat every movement frequently in succession) that leads, above all things, to a construction of sounds that are easy of pronunciation. This last influence tells in the vulgar pronunciation of words correctly known; on the other hand, the explanation of the fact that in most languages the words borrowed from another, especially the proper names, are modified in accordance with native usage, is to be found not always in phonetic convenience, but frequently also in the need felt to convert the foreign into the familiar structure of sounds, as if that alone were normal and correct. Nay, a third cause—of grammatical character—may often concur. *Eg.* a sequence of sounds that in compound words is avoided as disagreeable by modification of a primitive vowel occurs in close juxtaposition in the inflexion of a simple word, and here does not call forth the slightest effort at alteration. Neither the auricular image of it, then, is in itself displeasing, nor is the pronunciation difficult, but it is displeasing in comparison with the syntactic value of the one word, and pleasing in comparison with that of the other.

§ 3. This last remark leads us to the point where, strictly speaking, human speech begins. From what has gone before, nothing more could be inferred than a tendency to a musical exercise of the voice that renounced the attempt to make use of differences of pitch, and employed instead varieties in sounds. Language begins with the meaning attached to these sounds, and the peculiar form of thought into which that meaning is thrown—a form which is either itself also expressed in sounds, or, remaining unexpressed, makes the significant sound into a word capable of being syntactically combined with others.

Of these various elements, taking first into consideration the contained meaning, we know that now-a-days it is handed on exclusively by transmission from one to another, and that our sentient phantasy is utterly incapable of divining from the sound of the words in a civilised language a meaning such as shall necessarily correspond to it. It is supposed that in the infancy of speech this was not so; that then each one, at least of the simple sense-perceptions that men first strove to communicate, had a sound answering to it, and that it is possible in root words to recognise the meaning attached by the still unsophisticated and fresh phantasy of man to each vowel and each consonant, and each simple combination of them. Perhaps it is the fault of our present artificiality that we have no longer any feeling of this, and that—to be candid—most roots seem to us to have come by their meaning quite as a matter of chance; at all events nothing is more precarious than any attempt now to prove the inherent necessity of the connection between the two. Two things we must, moreover, take into account. The physiological tendency with which we have become acquainted, would in itself lead only to the expression of the particular kind and amount of mental stimulation produced in us by an impression from without, but it would throw no light on the nature of the cause of this impression. According to the varying degree of mental susceptibility, partly individual and permanent, partly belonging to the moment, the stimulation produced by the same irritant would prove very variable, and here one sound, there another would with equal physiological necessity attach itself as a name to the same thing. Tolerably similar designations could be expected only for such objects or events as exert an influence powerful enough to compel similar stimulations in every frame of mind. But we allow that there is another tendency of the phantasy, whose office it is, abstracting from the nature of the passive subjective state, to present a copy of the objective character of the irritant whence the impression proceeds. To this tendency we must in great part attribute the development of language, which even in its beginnings was no mere collec-

tion of emotional utterances, but with genuinely human comprehensiveness of interest strove to communicate also the tranquil moods of mind and the passionless results of the train of thought. The result of this representative tendency would, however, be uniform and general only supposing our sentience found in the single sounds with which it had to work a decided similarity to perceptible qualities of things, and to the forms of events. A perfectly plain and directly intelligible system of symbols would then instruct every one to associate with a particular idea only one particular sound, with the sound only that idea. But clearly this is not the case, and cannot be the case, because most objects of perception present a number of marks, and yet no rule determines in what order of sequence our attention is to combine these, or which it is to single out and make the basis of nomenclature. After all, then, only those words are directly intelligible which imitate an actual natural sound—a restricted and comparatively unimportant part of the stock of language.

Let us then be content to leave undecided the origin of the simplest words; there is still a rich field for a research confining itself to tracing the paths by which the phantasy of races, out of the few terms for sensibly perceived objects that doubtless formed the original amount of their store of words, has gradually acquired expressions for the endless variety of supersensible ideas and their subtle and complex relationships. We shall find, if we devote ourselves to this employment, that in the attempts to denote new objects or new results of reflection by judicious comparison with others already known or named, there is displayed, not only an exceedingly vigorous activity of the comparative imagination, but activity of a kind that enters essentially into the mental character of a nation and its mode of conception. The analogies, similes, and images which in our developed languages only poetry still employs, in order to replace the now ineffective diction of everyday life by expressions whose meaning, not yet worn threadbare, again brings freshly home to us the value of what they denote: all these means belong naturally to the youth of language,

and the flowery speech of many tribes not cultivated by reflection resembles in this respect not a little the manner of expression common to its earliest stages. Many a word that now briefly and with clean-cut impress denotes an object indeed, but seems to tell nothing about its nature, contains in its original full form—which etymological research can sometimes trace—a significant attempt at a theory, at an explanation of the thing denoted. Of course the strange error is not now to be justified of seeking to determine the nature of things from the meaning of their names, and of taking the notions deposited in these names by the word-forming phantasy of primitive times as a clue to guide us in attaining a knowledge of the things named. There is, however, a deep interest—and one not foreign to our subject—in observing what particular attribute of an object most strongly attracted that phantasy by its novelty or its importance, hence causing the name to be fixed with reference to it. We should frequently find how delicate was the comparative perception of these times of which no historic retrospect can now be distinct, with what susceptibility it often laid hold of the most general and not always the most obvious resemblances and connections of phænomena, and how even in languages of different types the similar comparisons implied in their terms for the same objects not seldom offer individual instances of a surprising identity of procedure in the common human phantasy. But these fascinating researches, which become convincing and instructive only through the collection of a mass of details, lie outside the narrower path here prescribed to us. We can take up language again only after it has reached a stage of its growth at which the primitive meaning of these picturesque word-formations has long since been forgotten. Most of the syllables that at first, through association with perceived phænomena, figuratively expressed the character of a notion, have passed into inflections, terminations, and prefixes, and serve only to indicate sharply, but with colourless abstraction, the formal setting that thought seeks to give to the content of the main constituent of the earlier compound.

§ 4. In now entering on the consideration of this relation between speech and thought, we are about to encounter questions that in themselves are not very obscure and scarcely to be called equivocal, yet which, in consequence of the one-sidedness with which they were formerly discussed, have given rise to much hot disputation. Whatever more strict sense we may give to the term thought, at any rate speech is not thought itself but its expression, and further, the expression, not of it alone, but also of every other movement of mind—of passion no less than of tranquil feeling. Now it is easy to see that speech may pass over much that thought, in order to be complete, must include; as in everyday conversation many connecting members are left to be understood by the listener, so even the typical forms of construction of a language may be an incomplete, but for all purposes sufficient, expression of the articulation of thought. It is then to make a needless demand to require that the verbal organization of discourse shall fully correspond to the logical organization of thought. On the other hand, the end of speech is not merely to be a brief communication of thoughts; in order to move the mind of another, to persuade, to set forth his own feeling with picturesque clearness, and to reproduce it in his hearer, to indicate his own conviction or uncertainty, to discriminate between the doubting query and the assertion, between the direct demand and the more modest wish, between indignant rejection of an idea and its mere denial—for all these purposes the speaker must be able to invest the content proper of his thought in manifold forms that add no material part to the logical structure of his sentence, yet throw over all its parts a peculiar colouring of merely psychological significance. Of course the sum of these secondary determinations might, if one cared to take the trouble, be also broken up into sentences of logical brevity, and in this form be added to the main affirmation; but it is certainly not the natural office of speech to say ineffectively and in a prolix manner what it can say shortly and emphatically. On the other hand, there can be added with equal facility those other qualifications which belong to the

thought in its completeness, but are passed over; and to do this is of more use. For very often logic, although all it has to do is to inquire what is the thought underlying any proposition, no matter how much of it is expressed, has allowed itself to be led by the incompleteness of the expression into needless and protracted questionings.

But one thing must be borne in mind: to whatever extent language is designed to include the subtlest movements of feeling, only such exhibitions come within the province of speech as are in some way expressed under the forms of thought. No more than the modulation of the voice and the accompanying gesture does the mere sound of exclamation belong to language, even when its meaning is unequivocal; besides the articulation and significance of the sound, there must be further a peculiar form of intelligent conception that makes the sound a word, and gives it its syntactical value. In order to review these relationships, we must enter at some length into the peculiar nature of thought and the very close connection between it and language that has induced us to subject to a common examination these two characteristic elements of human culture.

On a former occasion (*supra*, p. 232 sq.) I endeavoured to illustrate a distinction which we have to make between the *thinking* that alone deserves that name *par excellence*, and the *train of ideas* produced by the universal laws of psychic mechanism in all animated beings in like manner, but with very different degrees of vivacity. In the latter our consciousness is mainly receptive and passive; it receives the various impressions that beset it from the environment with or without connection, with or without order, as chance brings them; further, it permits memory, according to the general rules of the association and recollection of ideas, to repeat the several impressions in the same combination, sometimes significant, sometimes meaningless, in which they were held in the original perception. It might seem that a long continuance of this train of ideas would gradually of itself eliminate the accidental character of its connection; for in the course of things unconnected details

do indeed sometimes occur together, but not in constant conjunction. When, therefore, we survey a considerable tract of our experience, we find that the more numerous combinations of connected objects gain the preponderance over the more rarely repeated combinations of the phænomena brought together merely by chance Thus are gradually formed fixed images of particular objects, which detach themselves as permanently coherent groups of attributes from other shifting perceptions; from the concatenation of events there arise distinct remembrances that lead us instinctively to expect from present circumstances those consequences which actually flow from them with natural consistency. But however sufficiently in this manner the thus improved train of ideas may qualify the soul of an animal for finding its place in the sphere of its experience and attending to the gratification of its appetites, there is yet an utter absence of one mental operation which, as we have found, forms part of human thought. *We* do not at first merely receptively and passively receive the partly correct, partly incorrect combinations of impressions presented by perception, and later the amended selection of these left behind by the self-correcting movement of the psychic mechanism. Our thought, with independent action, breaks up the accidental associations of ideas, and, instead of merely leaving intact those which are coherent, puts them through a process of reproduction, after which they appear in forms that at the same time contain an indication of the reason why they are combined. Even animal consciousness is right as to the content of its thought when, with the image of a burden about to be laid on, it associates the anticipation of a painful pressure; the human judgment, *The burden is heavy*, adds nothing to this content, but, making the burden the subject out of which the pressure flows, it vindicates the combination of the two conceptions from the nature of their content, from the connection between cause and effect, and explains the merely actual combination of the two in consciousness by an objectively valid law, in virtue of which they cohere. It is needless to accumulate

examples of this kind; if the mechanism of ideation provides not only for the bringing together of the content of consciousness, but also to a certain extent for the elimination of the essentially coherent from the accidentally combined, yet it is *Thinking* alone that exercises on this content, that constant criticism by means of which our hypotheses in regard to the necessary connection of all things and events are worked up into a perception of the same, and the merely intuitive picture drawn by sentience and psychic mechanism, is quickened by a discernment of the internal bonds that hold together its several points.

This peculiar activity of thought comes to manifestation in the organization of language, and on the other hand is aided by the latter in its operations. To consider, first, the first part of this relationship, it is not necessary that each several operation of thought should have its own special expression; but language must separate from one another the simple elements of thought, by whose employment and combination all the more refined and elevated offices of thought are fulfilled, in forms that make such employment possible. It is not, it appears to me, fitting to begin the treatment of logic, as is usually done, with an investigation of the simplest form of combination in which thought unites heterogeneous mental elements. There is a still simpler and a prior task which it has perforce to fulfil; it has to give to every simple element, in order to make it capable of combination with others, a definite form through which, from a mere impression, the raw product of psychic stimulation, it is transformed into an organically utilizable thought-atom. The combinations into which thought strives to bring the manifold content are distinguished especially by the prominence in them of internal architectonic structure from the mere conglomeration which the psychic mechanism is adequate to effect. Stones can always be piled in a heap, whatever their form, if it does not matter how they are arranged; an edifice that is to be borne up and sustained by forces working in diverse directions cannot be put together out of merely spherical constituent

parts—for any design and plan the stones must be hewn into such shapes that they may mutually strengthen one another, and offer notched surfaces for adhesion and dovetailing. In like manner thought cannot directly make use of sensations, feelings, moods, simple or complex images, as materials for its structure; each of these elements, which are primarily but states of stimulation, it must apprehend in a form that in the subsequent combination decides on the manner of its employment and the particular fashion in which it is grouped with others. Language exhibits this first operation of thought in the distinction of its parts of speech. Inasmuch as it apprehends a content substantively, it recognises it as something independent, self-sufficing, capable of acting as the starting-point of a second and the point of destination of a third content; complete in itself and a self-sufficing whole, the substantive is the natural form in which the primitive language-builders expressed the notion of a *thing*, and which they therefore at first used to designate nothing that does not present itself to the eye of sense-perception as an independent object. The content stamped with the adjective character is thereby declared to be not independent, to be something whose existence, definite quantity, form, and limitation come from another and a substantive content, on which it is of necessity in a perpetual state of dependence; and the sensible properties of things, as exhibited by these in a state of repose, are what are first held fast in this form of adjectivity. To these elements language adds the third and indispensable one of the verb, in order to indicate the flux by which the course of events connects together these motionless images; this too is a form at first intended for the reflection of sensible changes, but soon employed also to express relationships between things in repose—from the movement of our comparative thought, by which alone we apprehend relationships, being interpreted as reciprocal movements of the subjects of the relationships.

It is enough to have spoken of these three forms which are indispensable to speech; let us leave to philology not only

the question which of them is the more original, and prior to the others, but also the genetic history of other forms which, as prepositions and conjunctions, by the introduction of complex notions of relation, elaborate language into a perfectly pliable medium of expression for thought. Let us be content with clearly recognising that those three forms present the minimum of organization and division of presented matter with which thought can attempt to begin its operations. Without them our train of ideas would be but a silent, our speaking but an audible, strain of music; ideas and tones might indeed refer to one another and reveal their affinities and antagonisms to feeling, but all the sharply discriminative arrangement would have disappeared that had been established by a definite form of inner connection. However full of meaning the music of a song may be, it is quite different in character from the words; no note in it is anything substantive waiting for an adjective attribute to be attached to it; none more than the rest expresses action proceeding from another as its living subject, and passing over to a third as its passive object. Never do two tones enter into one of those manifold articulate relations which language denotes by the cases of substantives, by the active and passive voices of verbs; the genitive that joins the possessor to the possession, the accusative that connects with the agent the result of his action, musical harmony has no means adequate to express. Now this is what we signalized above as the peculiar function through which the significant sound really becomes a word; for it is not made such by its significance; on the contrary, the interjections which most purely and directly express psychic excitement form an unorganized residue of the material of language. The sound becomes a word by means of the logical accessory thoughts displayed in the character of the parts of speech; they serve as uniting surfaces and joints for the various contents, which thus become capable of syntactic combination in the service of thought.

I do not think much of the objection to this view drawn

from the fact that in many languages the distinction between the parts of speech is not embodied in special sound-forms answering severally to each. What is of consequence is not that the form of our thought should be reflected in that of the sound, but only that it should be present as an accompanying act of thought. Whether or not a language indicates its substantives by any external mark, its syntactically formless word is nevertheless made into a substantive by the mind of the speaker who utters it with the thought of the substantiality of its content. Thought is not so absolutely dependent on language that combinations of sounds are of necessity the medium through which it expresses its formal conception of the content of presentations. Had Nature imposed instead of speech some other mode of expression on the human mind, it would have endeavoured to express through this other medium in equivalent forms the same distinctions which we have in language under the form of parts of speech; even had no means of expression been at its disposal, it would none the less have continued inwardly to make the same distinctions, though in this case much hindered by the absence of the reflex assistance that thought receives from its external medium of expression. The grammatical form of language may therefore lag behind its logical articulation, but where it does so the language is in a backward stage, and every language free alike from primitive crudeness and from the disintegration of decay will express the logical distinctions of its stock of words even in their audible sound-structure. To a far greater extent, indeed, the language-forming phantasy goes beyond the needs of thought, and produces a great number of grammatical forms and syntactical rules that with the progressive advance of reflection are gradually allowed to drop as superfluous. Thus substantives and verbs have gradually lost the wealth of inflections that distinguished them in the earlier stages of language, and thought has learned, by putting together many auxiliary words, to replace the delicate shades of expression which they embodied; on the other hand, the variety of genders in substantives and adjectives, and the

obligation on the latter to conform to the former, are still retained in different languages to different extents—a luxury of speech this, and an ingenious one, which yet forms merely a superfluous æsthetic appendage to the logically necessary systematization of thought.

Superfluous, that is, if we choose to look on language as exclusively a reproduction of the most general means of thought, through whose arbitrary application the knowledge of things is to be attained. But unquestionably from the first it was meant to be more; a great part of the work that had to be done it has already done for consciousness. Every object of external perception, every event, every extended figure pictured by us in imagination, every relationship between several things, may be approached on different sides by our reflective attention. Almost every content, therefore, admits of more than one notion being formed of it, according as we begin our construction with this or that constituent or point of relation, and add the others in this or that order of succession. The names of objects in a language of long standing are sufficiently set free from remembrances of their earlier meaning, the forms of construction by which relationships are indicated have become sufficiently detached, to leave freer scope to the imagination in this affair of individual fancy; former generations must in this respect have felt themselves under greater restraint. From the origin of their words being still in remembrance, and the mode of their combination being under stricter regulation, they must have been surrounded as with an atmosphere of common, national thought, which had already fixed the standard of conception in regard to innumerable objects and relations of objects, and to continue to think in the spirit of this seemed naturally incumbent on the individual. This is the somewhat dubious gift of a developed language that invents and thinks for us. If, however, we consider the inestimable advantage accruing to each individual from the inexhaustible, boundless riches of the world of thought thrown open to him, which he would be wholly unable to create for himself by his own powers, we lose sight

of the slight disadvantage of his being thus trained in certain one-sided modes of conception. At any rate, the effort to order one's own thoughts with unrestrained individual freedom can be made only when it has a point of departure in this national treasure of wisdom handed down in the language, and can thence draw strength for progress. Besides, in course of time a change takes place in this relation between language and thought. The more men advance from simple conditions of life, in which the poetic and genial phase of social relationships prevails for good and for ill, to division of labour—set about reflecting on and examining the nature of things, and begin to speak more of business than of feelings—the more, in a word, the working prose of life becomes developed, so much the more does language drop the crude prejudgments concerning things which it originally contained. By the obliteration of their etymology its words become mere denotations by means of sounds; the pleasure in sound and its harmonic varieties dies away; old time-honoured forms of construction perish in consequence of the practical need of terse and accurate modes of stating new relationships. Hence at last we find particular departments—as that of Mathematics—advancing almost to independence of words, and avoiding the prolixity of speech by a mere sequence of sound-symbols, whose visible connection as written characters is often expressed merely by pauses and accentuations in speech. Hence, in general, in the course of a vigorous development, much outward beauty is lost, and those nations do not usually advance on this path, which continue with much display of sonorous euphony to say little in many words.

§ 5. In a survey of the historical development of nations, these relations, to which it is here sufficient to refer, would naturally receive fuller consideration. On the other hand, a more general inquiry to which we have here to devote ourselves, links itself on to these remarks on the reaction of language on the development of Ideas. As speech has been called *thinking aloud*, so the converse proposition — that *thought is silent speech*—has not failed to make its appear-

ance. None of the points connected with this subject has been the cause of more disagreement than this one. On the one side, the capacity of speech is looked on as constituting the decisive superiority of human nature, and as alone enabling it to develop veritable thought out of the merely mechanical train of ideas; on the other, though the advantages of speech are not denied, not only is thought held to be independent of it, but it sometimes seems doubtful whether they are not outweighed by the disadvantages entailed by the habit of mentally clothing all thoughts in words.

In this respect attention has often been called to the fact that, unknown to ourselves, a strange superstition grows up within us: how apt are we to fancy that an object whose properties we have examined thoroughly, and of which we have formed a complete image, is yet not fully known to us so long as we are ignorant of its name! The sound of the name seems suddenly to dispel this degree of obscurity, though it adds nothing to the content—does not even always bring the light implied in indicating the particular place belonging to the object in a series, or within the sphere of some wider notion. Young botanists delight in learning the Latin names of wayside flowers, and go contented on their way only to be presently disturbed by a mountain that, strange to say, has no name, and so has properly speaking no right to be there. Now, what do they miss in the one case? What did they gain in the other? I cannot look on this fancy as so insignificant as it appears—nay, I see in it a counterpart or continuation of the genuinely human mode of conception on which I dwelt in discussing sentience. We are not satisfied with the perception of an object; its existence becomes legitimate only when it forms part of a regular system of things that has its own significance quite apart from our perception. Now, if we cannot actually fix the place occupied by a product of Nature in the universe, the name, at all events, allays our disquietude; it at least bears evidence that the attention of many others has already been directed to the object at which we are now looking; it assures us that the

general mind has at least been engaged in assigning to this object its special place in the connection of a greater whole. On this account it is that a name given arbitrarily by ourselves is no name; it is not enough that a thing is called somehow by us, we must have its real name; the name must be evidence of its having been received into the world of the universally known and recognised, and thus confront individual caprice as the peculiar and abiding determination of the thing. How little is this attended to by those who allow themselves to be led by the trifling peculiarities of their subjective line of thought, by the whims of their imagination, eager for new and capricious paths, to clothe old thoughts in an unusual phraseology, to overturn the established nomenclature of the sciences, and to perform the marvellous feat of calling all things by other than their names! Only the first discoverer of an object, or the first inventor of a scientifically efficient abstraction, is entitled to bestow the name under which he takes possession for science of this newly won point.

More serious is the other complaint, that during the long use of speech a multitude of modes of expression are accumulated, which, by means of the syntactic pliability of language, can be very conveniently combined together, but with which thought cannot keep pace. Much can be done with words, and as what is evidently nonsense must admit of being, grammatically and syntactically, quite correctly and elegantly expressed, even that it may be examined and denied. still more, by the readiness with which a grammatically faultless form can be assumed, half-true, confused, distorted statements may be made to deceive by an appearance of perfect correctness. These processes can be most clearly traced in the combinations of mathematical symbolic language. Many particular groups of signs bearing on one another, at first devised for a special case to express a relation there comprehensible, may afterwards be made to undergo a series of changes or of applications that for the moment have no assignable meaning, may frequently receive none even when

we continue to calculate with them, yet sometimes lead to the discovery of new and veritable relations, whose meaning we only afterwards begin to understand. The pliability of language very rarely indeed leads to such favourable results; for the most part it only suggests modes of conception that depart further and further from the truth. We must be content to adduce a single but comprehensive example of this very fruitful source of error. The substantive form belongs originally only to things, the adjective form to qualities, the verb form to events. But, of course, language could not in its judgments always begin with the thing, and annex qualities and action to this as the subject; it had to make the qualities in themselves and action in itself also matter of its reflection. Hence it severed their connection with things, and gave *them* a substantive form, either by adding a peculiar termination to express this new character, or by transforming the infinitive of the verb or the neuter of the adjective into a consistent, complete, and independent whole by means of a prefixed article. When we survey the still continued controversies of scientific men, who are mainly occupied with general notions and cannot protect themselves from error by the constant check of regulative perception of some sort, we cannot but acknowledge that nothing is more fatal than this one case of the pliability of language. Almost invariably we find a tendency to make the newly acquired syntactic dignity of words convertible with a new metaphysical dignity acquired by their matter. Thus we have almost ceased to speak of beautiful objects, *i.e.* we forget that what we call *beautiful* is originally a mere adjective determination not existing apart from a subject; we speak now of *the Beautiful*, or at the best of *Beauty*, and our æsthetic thinkers are quite convinced that what can exist only as an attribute is correctly apprehended only when it has unnaturally been apprehended as something substantive which is everywhere identical. Need we recall the host of similar instances—*the Infinite, the Evil*—or speak of the mischief wrought in ethical inquiries by the habit of speaking,

not of the freely willing mind, but of *Freedom*, as if it were a power acting independently, whose energy and achievements could be judged without reference to the nature of the mind to which it pertains?

In all these cases language creates for us a mythology, from which, of course, in the use of language we can never wholly set ourselves free without becoming pedantically precise, but against the influence of which on the moulding of our thoughts we ought to be carefully on our guard. Logic does not always assist us in this direction, nay, sometimes in its methods makes pernicious concessions to this false tendency arising from the use of language. It requires that a term to be defined shall be subordinated under a higher general notion (which, of course, is always put into substantive form), a special mark being added. In this way adjectival and verbal contents under the process of definition lose their natural form and position, which they would retain if the same plan were pursued as in plain people's awkward but more correct attempts at definition. It may be a matter of comparative indifference whether one says that *Disease is any departure of the body from its normal state*, or prefers to say that *A living body is diseased when it is not in this normal state;* but the latter definition, in which what cannot exist save as the state and quality of something else appears as an adjective, and is distinctly annexed to the subject in which alone it has its being, is formally the more correct and the more suitable. Though we may affirm that *Elasticity is that property of bodies by which they return to their original form*, the proposition *A body is elastic when it does this*, is unquestionably to be preferred; for the first form plainly contains the germ of a metaphysically false conception sure to be developed out of such use of terms, namely, the conception of a property, which is nothing else than the denotation of an effect, as the efficient cause or productive means of that effect. Mathematics and Physics, to which almost all that still remains of true and fruitful logic has betaken itself, have adopted this hypothetical form of defini-

tion wherever definition is required by the nature of the subject.

§ 6. But language does not exist solely to minister to thought, and to our poetically living and sympathetic apprehension of the world and its events that substantializing of dependent conceptions is no less indispensable than it is dangerous for thought. The same holds true of another drawback of language which is but rarely felt, yet when it is plainly perceived, is seen to be of some magnitude. Seeing that in speech the elements of thought are only successively presented, even in the most natural style of expression it is impossible always to avoid an order of words occurring that does not answer to the combination of the ideas denoted by them; but in a cultured style, with its tendency to intertwine much that in simpler speech is expressed in detached co-ordinate clauses, there is often a most striking perversion of the order apparently required by the general purport of the context. Undoubtedly an awkward use of these liberties is felt as cumbrous obscurity; but how much can be tolerated in this respect by our conceptive and constructive imagination, is shown most plainly by the collocation of words in Latin poetry. Even where they divide closely coherent and separately unintelligible parts of the discourse, we yet can often hit upon a manner of reading and accenting such as even in this situation enables us to discern their connection. In general, however, it seems to me a mistake to look upon that which most closely conforms to logical order as the best arrangement of words. On the contrary, one of the ends of language is to supply the place of perception. Now, as here it very frequently happens that the unimportant comprehensive background or some striking detail first shows itself, and not till afterwards the more important event, as the obvious effect comes before the hidden cause, or passivity on the one side before compensating activity on the other: so that discourse will be most distinct in which the several points of relation are marshalled in an order that brings them vividly before the reproductive imagination, no matter whether or not this cor-

responds to the logical order of the relations involved. For as even in perception our judgment in regard to this inherent connection is little affected by the order of succession in which objects happen to present themselves, so by thought we can very easily add to the given concrete image of an event those inherent relations by which it becomes intelligible; whereas the imagination has a highly difficult task when it is called on to represent successively certain relations at the bidding of the preceding words, before it knows the concrete concluding points towards which the thought is tending.

But if the deviation of spoken words from the logical order of thought creates no serious difficulties, perhaps a more important hindrance is involved in the amount of time which words occupy. Not merely in communication, it may be said, does speech mean the extension of an opinion to be expressed, of a brief sum of meaning, into a long discourse; but, further, the habit of making use of it converts inward reflection into silent discourse, and thus exerts a retarding influence. Thinking, of course, itself requires some time in order to perform its task of putting a variety of elements into relation; but the constant recollection of words needlessly protracts this time by its dependence on bodily conditions from which thinking could have kept itself free.

Many facts confirm this assertion. In trying to recall a melody, one finds oneself bound to a certain time; one cannot imagine a series of tones gone through in less time than it would take to sing it—well or ill. For we involuntarily accompany the auricular images of tones with slight incipient movements of the vocal organs, and we cannot make the former succeed each other more rapidly than the latter can follow upon one another. The musical expert may succeed in warding off this habit of retardation, and putting himself into the position purely of a listener with regard to the tone-images that revive in his memory; but even he will distinctly recall no greater number of these tone-images in the unit of time than the physiologically limited capacity of his auditory nerve would have allowed of his actually hearing within the

same unit of time. We find the same thing in the recollection of words; the many trifling difficulties caused to a speaker by the alternation of vowels and consonants retard the succession in the word-images even in the mere representation of discourse. Not for all to the same extent, however; for the facility of muscular movement or of the varying impulses to it is different in different persons. It is found frequently, though not without exception, that the propensity to rapid speech is inversely proportional to the length of the body. Very short people, just as from the shortness of their legs their pace is more swift and in general their heart-beat more frequent, have a natural tendency to speak quickly, and this whether they are also loquacious or whether they are taciturn, and only say rapidly the little they have to say. Tall persons will in general be found to speak slowly and phlegmatically; the rate of their discourse corresponds to their longer stride and greater slowness of heart-beat; for the rest, sometimes the stream of their discourse flows without interruption, sometimes they prefer to be silent on most subjects. It is long since these observations have become the property of the imitative imagination that moves in living human knowledge; with the aid of some exaggeration it has created out of small stature, with its sanguine lively temperament, a familiar comic type, in which are embodied a ready wit, a disposition to become eager about petty ends, and a tendency to rashness of all sorts; whereas the tall phlegmatic form—by dint of the same exaggeration a no less favourite character—has been taken by it for the expression of circumstantial thoroughness and tardiness in every respect.

It is needless to inquire further into the accuracy of these trifling observations; even were they perfectly trustworthy, they would merely prove that our course of thought cannot, so long as we convert its content into inward speech, exceed a moderate limit of velocity. But when we note the conscious impatience with which our thought often would fain hurry on, while yet it is compelled to linger over a simple idea till the compound term for it has been audibly re-

called to mind, we are enabled by this further observation ourselves to reduce within its true dimensions the disadvantage supposed to proceed from our being habituated to language. For here we have evidence that this retarding recollection of words is not absolutely compulsory on our course of thought, which really outruns it, and that with us, as in the psychic life of the animals destitute of speech, a small space of time actually contains a great multitude of ideas in the regular co-existence and the methodical sequence in virtue of which they become the motive of a present purposive action. But could this movement of wordless ideation by itself accomplish all that is really achieved, however leisurely, by the course of our thoughts when shackled by a persistent remembrance of words?

This question, we believe, must be answered in the negative — those views be rejected in which, under the influence of an enthusiasm for the ineffable, language is regarded as a source of detriment to a coveted higher knowledge. All that thought must of necessity, nay does, possess together in one indivisible moment, language breaks up into a successive plurality, developing discursive thought out of the direct intuition of our representative faculty. Thought running backwards and forwards moves between the sundered elements of its content, which the obstinate temporal course of this silent speech never allows of its uniting. That relative thinking to which we have already ascribed the dignity of being the germ of all higher intellectual development, we here find censured as the meagre form in which habituation to language permits of our performing high functions only inadequately. For does not all this putting in relation defeat its own end? Had our imagination not already under the guidance of slowly unfolding discourse divided the points that ought to be united, why should it require afterwards laboriously to bring the scattered elements into relation? This were in vain, if in our representative activity we have forgotten the first point of relation by the time we have come to the second; superfluous, if it is possible for us simul-

taneously to grasp the two, and also their relation, at the same undivided moment.

In the first place, we must modify these accusations, for they touch not language alone, but even thought itself, nay, they touch our whole existence. Not only do we think discursively, but we also live so; not only do we elaborate perceptions in this fashion, but they present themselves in no other. At no moment are we both what we were and what we shall be, and even of what we are, we are at any one moment conscious to but a small extent. Objects present themselves alike fragmentarily to us; we do not feel the pulsation that is the inmost life of things going directly through our heart; the creative force that stirs in them, and the Idea that binds their successive states into a whole, all this we must perforce seek to divine by means of the gradual combination of particular experiences; what in itself may be one, cannot but be to us an extended network of relations between many things. If we desire, instead of this separation, that silent insight into things, not intuition of them, which forms our conception of the omniscient, toilless knowledge of God, we must be convinced that isolated moments of approach to such a state are granted to us, but that our incapacity to combine them into the permanent clearness of a thought without distinctions is the fault, not of language, but of our whole mental constitution. When we have listened to a poem recited, to a melody sung, and forget the words and the tones, while yet all that was in them lives on in an abiding mood of our soul; when, after long deliberation and weighing of *pros* and *cons*, we have at length come to a resolution, and in the purpose that now animates us feel combined and still efficient the impulses that before were severally weighed by our thought; when we first send our glance over the scattered details of a landscape, and then, after the definite outlines have long disappeared from our memory, still preserve an indelible total impression: we actually succeed in making that combination and fusion of myriads of details into the whole of a supersensible intuition, which we but

reluctantly again analyze into its constituent parts in order to communicate it to others.

In all these cases we became something; the manifold did not remain outside of us, but the whole of its significant internal connection was repeated in a new state within ourselves with such perfection that we could fancy we had transformed ourselves into the spirit of the phænomena that we admired. But only the Infinite Being that itself *is* all that it makes the object of its thought, could in this way enter into the being of all things and, while entering into it, dispense with all divining inquiry beginning from the outside. The finite mind has no alternative but to comprehend the nature of things by means of analogies with its own. For it, volition is not equivalent to accomplishment, thinking to existence; for it the active and passive elements are separated from each other as diverse points, and it can apprehend the unity of what here is and is done only as the transference of an action from one thing to another; it does not discern clearly how the manifoldness of successive phænomena is identical with the unity of being, and is forced to divide them as predicates from their subject, to which they are attached only by the thread of a relation; finally, for it, ends are not spontaneously achieved, but the one life of the Idea, that is all in all, is converted into the co-operation of many means exhibiting themselves as independent of each other. All these analogies, these notions of things and property, of force and effect, of being and phænomenon, and all the forms of relation into which these *membra disjecta* are combined, must be employed by the human mind to gain a knowledge of things. And so indispensable to it is this putting into relation, that even in any moment of exaltation in which we actually find and enter into a higher unity, we feel restless and uneasy till we have expressed its content in some form of the combination of the manifold in which it may be definitely fixed and again participated in by us in the movement hither and thither of thought. In each poetic imagination, before it has done its work, lies this mystic unity, and in doing it each

seeks to escape from this; the best that we could ourselves be would not content us, because we cannot be it otherwise than by spreading out its formless depth into the surface of a complexly related phænomenon.

Language in all its operations is but the reproduction, not the cause, of this tendency of our mind. But, after having at such length stood on the defensive, I can more briefly add the positive assertion that even this form of thinking, the only one possessed by us finite beings, would actually remain very imperfect, without this reproduction in language. Language, of course, does not impart to the mind the elements of thinking; but it is indispensable when the mind has to combine these elements into the spacious fabric of its culture. As we always experience a refreshing effect from sense-intuition, and are not convinced of the success of any labour till we have before us some palpable result, so must the auricular images of names and the combinations of sounds that constitute grammatical and syntactical forms of speech, present to us in a fixed, sensible form, the former the multiplicity of things, the latter the systematic plurality of their possible relations. There can be no clearness of thought where the many presentations and groups of presentations that in mutual relation are to form a thought simultaneously occupy our consciousness without names, and only in their original character of affections of the soul; even though thus they may be not a mere heterogeneous assemblage, but already held together by relations corresponding to those subsequently to be formulated, yet consciousness is not aware of this internal organization. It becomes to us real and true when in the task of statement we first bring one presentation into prominence, and then, guided by the syntactical form which we have given to its name, go beyond it in a definite direction, and rejecting on the way many others, succeed at last in putting into special connection with it the particular second presentation indicated by that direction. No thought is clear and distinct until it has undergone this process of analysis and recombination, and the simplest self-scrutiny may teach

any one how, in proportion as the plastic form of the Idea comes out into relief, the obscurities disappear that clove to it in its earlier unexpressed stage. As a work of art cannot be a full harmonious truth until it has been completed in marble or bronze, and as a conception in the artist's imagination is but a disjointed and fragmentary beauty, so for mankind language is the universal plastic material in which alone they elaborate their surging ideas into thought.

I have dwelt at special length on this point of view, which has a close affinity with that which throughout forms the fundamental thought of these inquiries, in the conviction that what we may take to be the highest content of the universe is to be conceived by us only as realized by a regular mechanism. I return but for a moment to the first form in which language exhibited itself to us. Originally designed as a medium of communication, it expanded unawares to us into an independent organism, over the development of which we have no control, and to whose inherent nature we must accommodate ourselves. Now, how much language even in this its primary function—*i.e.* how much the possibility of conversation—contributes to high human development, needs no more than to be mentioned. It is an indispensable instrument not only of the first training, whose absolute necessity we shall subsequently feel, but also of the further cultivation of the already vitally stirring mind. A course of thought solitarily pursued by the individual, the direction of which only new external perceptions would alter, meets with salutary interruptions from the questions and answers of another; one-sided associations expand under the influence of a foreign world of thought and feeling, which brings alike new intuitions and new points for the contemplation of those common to both. But why refer here in general to that to which our attention must subsequently be specially directed? Let us merely add that language renders similar services to the thought even of the individual when alone. By the sound of names, by their metrical rhythm in combination, are suggested to him attendant ideas and feelings, as well as remembrances of what is not

present that would not in such abundance and distinctness accompany the dumb course of thoughts without words. As rhyme sometimes unexpectedly suggests to the poet a graceful conceit, so words in general, by means of the manifold associations cleaving to their meaning—so frequently figurative—guide our imagination along many paths that otherwise would be closed to it, that lead not always to the right goal, it is true, nay, often to a wilderness, but always disclose to us a rich field in which we can pick out the fruits that suit us.

# CHAPTER IV.

## KNOWLEDGE AND TRUTH.

Progressiveness of Human Nature—The Ideal Nature of Mind and its Mechanical Equivalent—The Nature of Human Intelligence—The Stages of Reflection—The Universal Impulse to Volition and Action—The Genesis of Special and of General Notions—Place of Generic Notions in Men's Conception of the Cosmos—Innate Notions of the Understanding and their Impossibility—The Origin of Universal and of Necessarily Valid Notions—The Notion of Truth—Laws of Identity and Causation—The Natural Metaphysics of Life and its Development.

§ 1. IN the foregoing inquiries I have avoided touching on the question of the origin of language—a question that perhaps would be as fitly answered by a brief acknowledgment of our ignorance as by the few remarks that we shall hereafter have occasion to make on it. To the individual language is part of the tradition of education; it comes before him as a completed whole, only in a few points still admitting of modification: the spirit of this he makes his own, and to it at the best he in return supplies slight impulses to further development of no account in comparison with the incalculable amount of what he has received. However far back in history we go, we find everywhere the same thing: even in the most ancient times the growth of language appears as long since completed through the united efforts of countless forgotten generations. Now here it was not our purpose to examine the substantial possessions won for humanity by the mutually complementary efforts of all. Not having yet approached the region of historic development, we were, on the other hand, searching for the capacities, ever identical and occurring invariably in every age and every individual, that are the instruments of the human mind for these operations. They are far from enabling the individual by his own strength to reach the goal of humanity, but they put him in a position

alike to make use of the results of others' toil and to increase this transmitted treasure by one of those imperceptible contributions which accumulated determine the slow progress of general civilisation. We had therefore here to be content with referring to the impulses that lead each individual mind eagerly to seize upon language as a satisfaction of its own cravings, and to take possession of it with the instinctive rapidity of a sympathetic understanding that would itself have made precisely similar attempts to create it had not the kindred activity of former generations already brought it into perfect shape.

If we direct our attention to the other phænomena of human life, we find a very similar state of things. In our science and in the common-sense judgment of things, in our moral convictions and in the instinctive ethics of conduct, in the extensive works of stupendous mechanical production and in the petty arrangements of retail trade, everywhere we live on an indefinite capital of work done in the past. Nay, so universal is this feature of our culture that we have been used to contrast this power of advancing by means of historical transmission with the unprogressive psychic life of the lower animals as the distinctive criterion of human development. The attempt to pick out of this atmosphere of custom that surrounds us the energies for work with which each individual mind comes forward afresh to join in the labour of all in accordance with an unaltering disposition of our nature, is the more difficult of accomplishment, the greater the variety in the immediate results of such energies, from the favourable or unfavourable situation in which each one is called on to labour. There is no less temptation on the one hand to ascribe too much to the natural capacities of the human mind, than danger on the other of overestimating the importance of historical development. In former times men were especially prone to the former error; for every great achievement in civilisation of mankind they imputed to the individual an immediate capacity directed towards this end, that, existing fully developed, only required to be called

forth. Such opinions are no longer in vogue; we know that no direct voice of Nature teaches the individual in visions where to find the fruits of humanity, but that the long labour of mankind's development has brought to maturity such fruits as the individual may gather. We, on the other hand, are perhaps too much inclined, amidst the tumult of the historical actions and reactions to which we find the progress of civilisation attached, somewhat to overlook the indispensableness of the definite capacities that must silently correspond to the outward conditions. I intend here merely in a few words to refer to what I have already said in regard to this tendency.

When in the first part of these inquiries we were discussing the general organization that must be assumed to belong to every form of soul-life, whatever its kind, we found that the necessary unity of the soul could not mean that in virtue of it the soul is confined to a single, everywhere homogeneous fundamental type of action. No more seemed to be implied in that unity than that all modes of psychic expression, however different and independent they might originally be, yet as harmonious parts compose the whole of one plan, one character. While, therefore, the different faculties of the soul do not arise from one another, but, in part only, co-ordinately from the depths of its nature, we noticed that together they form a harmonious chord, and that in virtue of its fulness of being the soul cannot develop one of these energies without this being accompanied, as if by a law of poetical justice, by a greater or less share of the others. With this idea, which applies to the psychic life of all kinds of creatures, we a little way back, in the plan of the second part of our considerations, came to the question—What causes determine the various levels of development reached by the various races of animated (*beseelten*) beings? Now here it was a possible opinion that all souls are homogeneous in nature, and that the combined influence of all external conditions, as well those whose seat is the organization of the body as those which supply the scene and issues of life, is the cause of the definite psychical development of each species, in one case of the inferiority of the animal kingdom, in the other of the

superiority of human civilisation. We did not feel ourselves justified in decidedly rejecting this opinion; on the contrary, one cannot help following its attempts at explanation with interest, for undoubtedly they are to a great extent justified. And yet their results as yet give the impression of their conducting us almost to the point where the stopping short of animal psychic life and the bound forward of human psychic life are explicable from circumstances, and then constantly leaving a remainder that is not explicable from these circumstances. We frequently come close to the goal, and yet we never reach it; what is lacking is evidence whence the privileged human race derives the general energy and the good-will to make use of all the advantages of external conditions, nay, to contend against their disadvantages; and whence, on the other hand, comes the spell that keeps the animal world within certain bounds, whose impassability for them cannot be properly demonstrated from the circumstances of their life.

These considerations give to the other possible opinion a preponderance that for us it would at any rate have on more general grounds—the opinion, namely, that in each species external conditions are in complement to a peculiar nature of the psychic life which they have to develop. Without altering the universal laws of the psychic mechanism to which each such life is subject, this nature as a specific everywhere active co-efficient alters the form of the result of the application of those laws, and in this way it forms the basis of the special direction and level of the subsequent development. The efficacy of this basis can undoubtedly be limited by obstacles, but where it is lacking no favour of circumstances can be a substitute for it; deterioration of germs occurs in every department, and even human development does not invariably fulfil its design; but even in a state of animal degradation the human mind contains a capacity of improvement that under the most favourable circumstances the purely animal soul lacks. This is the view which we mean to pursue further. I have referred to it again in general, not with the intention of proving its necessary validity; but it may

stand as the view which I have chosen, my choice being between two possibilities, with regard to which it remains undecided whether on inherent grounds one of them will not in the end be found to be impossible. Concerning the further elaboration of this conception, however, and its difficulties, I intend to add some remarks.

What distinguishes one from the other, the psychic life of brutes from that of men, is not a single, separable form-constituent in addition to others that remain unaltered or in the place of one removed, but a peculiar colouring hard to define that is diffused over the whole picture of the inner life. Language itself shows this in its denotations of internal events, at least where these still impartially reflect the total impression of observation. We must grant to animals, in particular, much consideration, much combining of thoughts, and many surprising traits of sagacity; but understanding we are fain to deny them; they dream in sleep, and doubtless while awake think of the past and the future; but we hardly care to speak of their imagination, creative fancy we utterly deny to them; they certainly have feelings, and these not only rude sensual ones, for we speak of the fidelity of one, of the nobleness of another; but, on the whole, we reserve the emotions and the heart for man; we have to admit that they have fits of passionate excitement, and find that in many species these can by training be to a considerable extent repressed and prevented from breaking out; but free self-control we ascribe to man alone, though we must confess that it cannot be strictly demonstrated that he makes use of his freedom, the preponderance of one passion over another and the fear of consequences being for him, too, the most common motives to action. In all these relations human mental life cannot be seen to be favoured by the peculiar nature of the elements of which it consists; on the contrary, its frame-work is ultimately composed of the same mosaic pieces that make up that of animal intelligence; its peculiarity consists in the manner in which they are combined and employed, in the spirit that works with these instruments and ennobles all

particular effects by the meaning with which it fills them as expressions of a continuous and connected plan of life. The unity that consists only in evolving manifold activities as equally necessary results from the basis of a common nature undoubtedly belongs even to the psychic life of brutes; in the human soul there further appears the characteristic of a methodical pursuit of development, that gathers together very heterogeneous means for the realization of a culture seen afar off as an end and a vocation.

§ 2. This impression it is that has, properly speaking, always guided the popular conception of psychic life, by it too is essentially governed the peculiar form of psychology that under the special name of a *Theory of the mind* seeks to distinguish itself from other systems in this department. For, putting out of account all errors caused partly by the inherent indistinctness of this view, partly by the passion provoked in its opponents, it is easy to see that its high self-appreciation and the cause of the approval which it will always meet with, lie in its agreement with a very obvious tendency of ordinary opinion. Left to itself, our desire for knowledge is not, with regard to all objects, primarily directed towards the origination and preservation of their single attributes and states, but rather towards the harmony of this motley assemblage. The contemplation of mental life in particular did indeed at an early period suggest other questions as to the mechanism of its working, but a far livelier interest has always been felt in the attempt to derive the various faculties, energies, and habits of working which we find within ourselves as mutually harmonious functions from a single comprehensive tendency. As we trace the details of a work of art in their necessity for the expression of its one Idea, without in the first place troubling ourselves about the technical method of execution by which the features were one by one moulded in bronze or marble: even so we seek the true essence of the mind in the end at which it aims in all its activity, and we think we understand it when in each of its manifold utterances we recognise an

expression of its striving, and in the connection of all the unity of that striving. And further, we do not trouble ourselves at first with the causal process by which each one of these phænomena of mental life is realized and brought into effective connection with the rest. Somehow, we take for granted, this is accomplished; but the true essence of a particular form of mental life does not lie in the general laws according to which any other might just as well come into being as itself; it lies rather in the peculiar nature of the points of application that are here presented to those universal laws otherwise and better than in other instances, and that make it possible for them to determine these specially prominent results. These peculiar points of application need not all consist in special combinations of external conditions; we may assume that the principal of them is the special living Idea itself that gives rise to the distinction between the human mind and souls of brutes; but we must not on this account refuse to take account of the process by which this Idea itself can acquire effective power over the mechanism of the psychic reciprocal actions; least of all must we try, by means of the trite contrast between a higher and a lower view of things, to rid ourselves of the necessity of showing how the soul's ideal striving comes to co-operate in the development of inner life everywhere taking place according to universal laws.

We know how a number of concurrent causes always go to produce an event, all equally indispensable but otherwise varying in importance. It is often possible to give to one of them the name of *cause par excellence*, because by it almost exclusively the form of the resultant effect is determined, and to treat the others as concomitant causes that partly as exciting stimuli (as we suppose) call forth the matured but still latent effect, partly—and this is the more correct statement of the other case also—supply lacking conditions or remove obstacles to development. Thus the germ of the plant needs many secondary agencies to make it grow; they all, however, merely help to develop what is pre-

determined and prefigured by the sum of all the properties of the germ, not to be particularized here, on which its principle of development depends. But without the stimulus which it receives from the influence of these external agents that tendency would remain inoperative, and even under such influence it by itself determines only the first momentary infinitesimal change which the condition of the germ must undergo. The various stages of vegetation, on the other hand, take place only in a fixed order of succession, and only because at each moment the influence of external concomitant causes is acting anew on the actual state of the germ and on the velocity and direction with which the motions then going on in it are seeking to drive it out of that state. Not only does the disposition to a particular form of flowerage and fruitage, which we are accustomed to consider as already present in the seed, become actual only at a particular point of its development, but every tendency to the shaping of the next moment is developed only at the present moment by the actual total state and the sum of the newly operative conditions. But certain as it is that each further stage of development is effected only by means of the plastic germ offering itself anew as altered by the preceding stage to the co-determining force of the stimuli, we yet are entitled to impute the whole series of its evolutions to its original nature. All that has to be provided for is that the weight which, in virtue of that nature, is thrown into the scale in the fixing of the character of the first transformation, be decisive, so that though the force of external stimuli may entirely check the development, it cannot so long as that goes on divert it into a different course. The external conditions must recognise its original state as well as each of its subsequent modifications as the main factor in determining the form of the next stage, and themselves take a subordinate place as subsidiary forces in the realization of this. Of the total formative impulse of the germ, therefore, at each moment there can only appear as an efficient force a part so great and of such nature as is set in motion and discharged

by the present reciprocal action between the final state of the preceding stage and the new conditions of the present one; but these various forces will combine into a series of harmonious energies of development, because the original tendency of the germ remains the determining force in them all. Thus, on the one hand, it happens that no amount of tendency to growth in the plant would be of any avail, if it were impatient to bring forth fruits before flowers; but, on the other hand, it is also due to this principle that the seed of the oak produces oaks, and is never converted by circumstances into a beech.

Now those who like us find the peculiar form of mental life prefigured in an original tendency of the mind, know that this is a brief and incomplete statement of a relationship precisely like the foregoing. They know that the soul neither is in miniature what it will be, nor, without some external stimulation, sets about becoming it; they know, further, that when it is stimulated its evolution does not unfold all at once and uninterruptedly, as if it had only needed the breaking down of a barrier in order to allow free vent to the current of its own spontaneous tendency to growth. Only the unremittingly renewed effect of concomitant causes on what the soul has become through a first stage of development, gives rise in it at once to the capacity and to the necessity of entering into a definite second stage. And should these concomitant causes consist not altogether in new external stimuli, but partly in continued effects of its own inner states—parallel to the setting in motion again of the planetary system by means of its own motion—the original tendency of the soul, however high it might soar, would not be able to dispose even of these its own inner states with arbitrary freedom. Even of its tendency to growth at each moment only so much is realized as the total sum of the excitations present in it, which now influence it instead of stimuli from without, is able to call forth into activity. Thus, while its tendency is realized only in an unbroken mechanical connection, it is yet not a passive

product of the same. For though the soul cannot react and respond until it is acted on and questioned, yet the matter of its answers is its own, and at every moment expresses what in accordance with the internal harmony of its nature it has to respond to these particular stimulations, to develop in this particular stage of its development. The integral of these successive expressions is the soul's original tendency, only that here we have not merely to add different quantitative values of reaction in order to find variable values of the stimulations, but, from different momentary forms of action under variable conditions, must go back to a primary genetic form of function.

The applicability of the comparison with vegetable life ends here, however. For the germ of the plant remains always a plurality of parts, whose mode of combination alone determines the type of the future vegetation. Thus in the course of reproduction a system of concatenated particles is produced from a prior similar concatenation of others; but the vegetable tendency to growth never has such a concentrated existence as to lie latent in a single indivisible atom as its nature and essence. Hence the development of the plant everywhere gives occupation to the explanatory form of science; not only the origination of the germ and of its primary plastic tendency becomes here a fresh subject of inquiry, but also the basis of every subsequent peculiar reaction which after it has been modified it suffers external stimuli to wring from it; for even this reaction rests on a new collocation of its various parts, and is consequently to be judged according to universal laws regulating the reaction of different parts. It is not so with the mind. Its primary tendency to growth lies not in relations of distinguishable parts, but in the one and indivisible meaning of its ideal nature; the kind of answers that in the course of its development it returns to external stimulations does, indeed, depend on a dislocation and rearrangement that has meanwhile taken place within, not, however, on a dislocation in space of mutually independent parts, but on the altered

intellectual relation and tension between the actual form and amount of the stimulation or expression and the permanent ideal content of the mental nature, which perhaps does not in the first instance seek to express itself, but if it is forced to do so does it completely. Even in these profoundest causes, therefore, of mental development there is the harmony of a necessary connection; this harmony, however, bears the impress, not of mathematical regularity, but of an æsthetic justice, different from the former only in its *kind* of consistency, not in the imperative and durable nature of its laws. For while mathematical law directly determines only the mutual effects of similar events, æsthetic justice combines things that to our notional comparison are dissimilar, but yet necessarily belong to the total of an Idea. In the sum of human knowledge the discernment of this justice may be looked on as an untrustworthy conjecture, and appeal to it as an incomplete way of estimating things, whose certainty is far inferior to that which mathematical thought attains in its department; on the other hand, in the total of reality itself, its laws, primary and most inviolable, are those on which the whole connection of things rests; it establishes the immutable relations between things, on which as on a given foundation all calculation must be based in order that the destinies of one element may be deducible from those of others. In the universe a universal statics and mechanics of content precedes the other statics and mechanics which refer only to the variations in amount of that content. We discern its laws, in the contemplation of Nature, in the shape of those practical laws of action and reaction that the mathematical theory does not make but can only recognise; they meet us in mental life in the general tendency which we perceive as the driving wheel of its whole development.

Now, however difficult it may be to give an exhaustive statement of this tendency, however numerous are the sources of error, however great the risk of arbitrarily and one-sidedly estimating and interpreting the individual phenomena of this development, we yet, now that we are about to enter on this

path, cannot allow that any impassable chasm prevents the theory of an ideal unity in mental life from being combined with the theory of its mechanical realization. Any one who has attentively followed the remarks just made must have recognised in them the complementary half of a train of thought against which we formerly had to contend (*supra*, pp. 434 seq.). Then we had to point out how a mental process underlies all the outer calculable mechanism of the material world; here what we had to dwell on was the absolute necessity with which every mental process, however great may be its significant ideal elevation, not only is itself subject to law, but also at once attaches itself to a system of comparatively external mechanism—one, *i.e.*, that takes account not of the æsthetic harmony of ideal moments, but only of the amount of efficient force brought to bear severally by each one. The conflicting views of mental life are reconciled by ours, which neither makes the significant Idea float in isolation as a boundlessly shaping power above the low sphere of the ordinary psychic mechanism, nor is satisfied with the blind labour of the latter alone without the assumption of a moulding ideal impulse. On the contrary, we are inclined to regard the Idea itself as one of the forces that co-operate in that labour, in such wise that by its nature, like every original force, it proceeds independently of the mechanism, yet becomes effective only in so far as the vehemence of its effort is wholly transformed into a mechanical equivalent of the same kind as other efficient forces. But the further prosecution of these thoughts belongs so much to the future that we must here be content merely to have vindicated the principle of our theory; between it and its detailed exposition lies a wide gulf, which may be consolatory to those who feel that this repeated setting forth of convictions that have been already indicated leads into too gloomy regions. For we ourselves find it now necessary to return to the familiar spectacle of experiences in which the observing eye may be able to detect the primary moving spring of mental life.

§ 3. That eye has from the earliest times rested on its object with too lively an interest to permit us to fear that the oft-made attempt to express the essence of mental development has wholly failed to reach its end. Human life has been contrasted with the dream-like existence of the animal creation — that ever changing is mastered by changeful impressions—as a lucid waking state, which by infinitely varied processes of reflection, each one going beyond the other, can make every impression and every state the object of new knowledge, and thus converts vague absorption in the matter of the world of thought into free, living possession of it. In contrast with the animal's confused consciousness distinguished from that of others of its species only by the direct sense of its existence and by reference to its special, and yet but little specialized, experiences, was set the self-consciousness of human personality, with its sense of confronting the world as something purely individual. In all the stages of human development was seen a distinct expression of the mind's vocation not only to receive impressions from outward things and to react on them, as one thing is acted on by and reacts on others, but in this mutual relation to destroy the obscure semblance of a foreign and unintelligible reality by which animals are ever surrounded. The inner life of things is revealed in distinct knowledge to the human mind, and it understands that this whole Non-ego of things is but a disguised consciousness under the veil of which it finds only itself and the characteristics of its own nature. In these expressions and in many other similar ones we undoubtedly feel that the true nature of the mind is touched, perhaps with some tendency to over-estimation of its merely cognitive activity; the further elaborations at least of such theories are not free from the reproach of too directly reckoning advanced stages of culture, which under favourable conditions our development may reach, as its natural results; finally, perhaps also they are incomplete in so far as, with an excusable preference for the bright side of that development, they took account too exclusively of the germ of good in the mind, and

were not careful to delineate it so as from its natural disposition to render intelligible the low, perverse and evil element, whose existence experience does not permit of our denying. These considerations cannot, however, prevent us from entering on the inquiries alluded to, at any rate here, where our primary concern is with the distinction by which human intelligence, apart from its nature in other respects, excels the psychic activity of animals.

While in inanimate things the impression made in the preceding moment forms one of the causes that shape the subsequent moment, and consequently the past by its effects lives on in the present, undoubtedly the inner life of animals has the advantage that its previous states not merely thus prepare the later ones, but are frequently retained along with the latter as conscious states, and that the relation between the two, which in the former case was but a blindly acting power, may here become the object of a new consciousness. It is useless to try to determine to what degree of delicacy this relational activity may be developed in the lower animals, and we may allow that it perhaps reaches but very low levels, though the certainty with which this assertion is often put forward rests far more on the arrogance of human pride than on real acquaintance with the psychic life of brutes. Now the increase which the capacity thus to reflect on his own states undergoes in man cannot be looked on simply as increase of strength; that a relation between two elements is *more or less* carried into effect is not a distinct thought, unless this more or less is sought either in the varying completeness of the actual relations between all the points of the content that can be brought into connection, *i.e.* in the many-sidedness of the action, or in the multiplied repetition of the same act, which each time it is repeated becomes its own object, the matter of a new train of reflection.

Thinkers have often been inclined to define the distinction in the latter form, and to hold that animals may know that they have different ideas, and may be aware of the mutual relation subsisting between these as to content; but that this

is the utmost extent of their activity; that man in addition to this knowledge makes his ideas the subject of a new knowledge, observes himself in his own energy of comparative thought, again observes that observation, and so *ad infinitum* he knows about the knowledge of the knowledge of his knowledge, till he himself becomes weary of climbing higher this ladder of self-examination, or we grow weary of following him. Both are sure to happen soon, for we soon become convinced that as we rise the prospect does not widen. If it is the lowest step of the ladder to be merely the scene of a continuance and disappearance of immediate impressions that controlled by mechanical laws become linked together in definite relations, unquestionably the apprehension of these relations as subsisting between them and the deliberate combination of them into a connected idea of the universe, is a new event within the soul and a second step in its development. If, further, this first awakening of comparative thought is a movement of perception, active indeed, but confined to each particular case and not distinctly conscious of its own procedure, the reflection that embraces in itself these instinctive efforts in their connection as energies of the Ego and detaches them in their universal form from the particular cases of their application, undoubtedly forms a new third step of development. But no higher round brings any essential modification of the matter, or any new attitude of the reflective soul in respect of its direct states; each successive reflection of this knowledge in higher knowledge but obscures the outline of its content, as each repeated reflection of the same image does. We reach further only by making use of the second of the above-mentioned points of view. Conscious as we become in the endlessly different cases of external impressions of the ever various yet essentially similar relating activities to which they give rise within us, by this increasing many-sidedness of our reflection we advance our knowledge both of things and of ourselves, and then think to have gained by a higher point of view what we really owe to the comprehensive use of the one. Let us now consider how these three various steps

of knowledge are related in the psychic life of brutes and of men.

The primary element of all inner life, the direct sensations caused in us by the outer world, we have assumed to be alike in all the creatures which we can have any interest in comparing with ourselves, and we shall not here go back upon the inquiry into them already made. The second element consists of those forms of grouping to which the mechanism of the inner states gives rise, and by which these impressions are combined into the image of a universe; forms which are not exercised consciously or capriciously, but whose incorporation into the matter of sentience is an event taking place unknown to consciousness and coming under its cognizance only as a complete result. Subsequently in scientific thought we may try to guess, but we cannot directly perceive, how our psychic activity arranges in time and space the manifold of impressions; only the smooth already elaborated space-image of the world comes before our eyes, and we fancy that we perceive directly time and the movement of events in it. With equally unconscious necessity arise in us ideas of things in general, and the habit of adding something in thought to every change of the present, whence it has come, whither it will lead, much about it with which it stands in contrast as its abiding environment. Moreover, all comparisons and distinctions begin with the apprehension of resemblances or differences given directly in perception. They may become more distinct with the aid of conscious reflection; but relating knowledge, if it consists in the consciousness of the change undergone by our inner life in passing from one impression to another, can apprehend the nature and amount of this change only as a result, it must leave it to the unconscious mechanism of our nature to produce it. Such comparisons as whether one colour is like or unlike another, more akin to a third or to a fourth, no doubt do not pertain directly to sensation, and nevertheless we are right in believing that we must see relations of this sort and cannot grasp them by thinking. For the reciprocal actions by which our

psychic states of excitation corresponding to the individual colours determine our judgment as to their likeness or their degrees of affinity, absolutely elude our consciousness; only the completed result, the content of this judgment, stands before us as a simple fact of sentience. In like manner we could never ascertain the proportional magnitudes of two visible objects, if the resources of calculation, which in more difficult cases one calls to one's aid, did not always depend ultimately upon the fact that the similarity or dissimilarity of the parts of the standard to which final appeal is made is matter of direct perception. We may thus say that within the whole range of this energy, the second of the stages of development which we distinguished, consciousness merely coming in afterwards takes cognizance of relations which it did not by its own action originate, but which have been prepared for it by the unconscious mechanism of the psychic states. And of these relations, by which first of all the confused variety of confluent impressions is arranged into a conception of the cosmos, not one can be denied to the lower animals without making their everyday life incomprehensible. Apart from the intuitions of space with which they are as familiar as we are, they show their appreciation of size by their fear of the large, their contempt of the small—their habit of connecting with the idea of the present that of its immediate consequence by their understanding of threats—the other habit of seeking the quarter whence comes anything new by their looking round on receiving unexpected impressions. Neither the nest of the bird nor the web of the spider, still less the remedial regard to circumstances and accidental hindrances displayed by both in their construction, can be explained unless it be granted that even *their* intelligence compares the present with the absent, and the defective reality with the complete image of what is sought, perceives the difference, and recognises in a third thing the means of removing it.

But in the energy and versatility with which these powers are exercised we find a considerable superiority on the side of

man. It is remarkable to how great an extent animals are roused to perception and action moment by moment, through incidents that call forth a selfish interest—it may be self-preservation, or it may be some advantage—proper to their species, and how soon even just after the first steps their energy begins to flag, in consequence either of the stimulated impulses being satisfied, or of continued occupation with the object producing the impression yielding no new ideas in close connection with their vital necessities. Thousands of phænomena and incidents come constantly before animals that not merely make physical impressions on their organisms, but also undoubtedly awaken ideas in them; but very few of these myriads exercise on their consciousness the stimulating effect of an interest such as could excite and keep up a continuous and gradually expanding train of thought. We would deceive ourselves, no doubt, were we to conceive of the whole psychic life of animals as a mere instinct that, insensible to everything lying by the side of its path, was always making straight for ends having their foundation in the character of the species; doubtless the animal soul too has a range of disinterested activity susceptible to the manifold changes in the situations of life, as on the other hand human life is not all self-consciousness without a shadow, and free self-determination, but is also directed by many instinctive impulses towards the organic ends of the species. But animals lack in their perception the forward restless curiosity that embraces the great and the small, the near and the distant, with equal eagerness and without respect to particular advantages; they lack also in their practical relations, chiefly in consequence of the other deficiency, any impulse towards progress. Whether it be true or not that the ape does not strike out the idea of keeping up the fire deserted by men, at which he warms himself, at any rate we never observe that it occurs to the most capable of animals deliberately to apply to the bettering of their condition the dexterities with which they have been equipped by the zeal of man. A universal desire after knowledge and a universal tendency towards complicated

action are, in contrast to this one-sided and resultless capacity for learning, natural instincts of the human mind.

It would be a mistake to ascribe a deeper significance to this original impulse; neither is it primarily directed towards the truth of things, nor is it aware of any end which it pursues; like the physical hunger that moves the organism, it is the soul's unrest seeking occupation. The unsophisticated healthy human being is everywhere eager for impressions; first his senses pursue everything that offers them satisfaction, then his thoughts seek all that can add to his stock of ideas what is new, and yet intelligible through its capability of linking itself on to what he already possesses. Savage tribes have a sensuous delight in brilliant variegated colours, in noise and tumult, in all that yields something to see and hear; and the child's undiscriminating love of sweets proves, perhaps, this universal craving for impressions, rather than for the special pleasure of the palate; both delight in tales and fables, at first at least, without asking more as to the content than that it be diverse and highly-coloured, appeasing with its changes the hunger of the imagination. This universal and vague pleasure in the variety of things becomes in the course of life limited and elevated; the interest in particular impressions of sense that daily present themselves in similar forms, is transferred to their varying modes of combination; with increased personal experience of the joy and sorrow of life those perceptions gain a preponderant significance which, whether as causes or effects, as offering resemblances or symbols, recall past experience, and by degrees an instructive element comes to be required in impressions in addition to mere entertainment. But this restriction of the course of thought seldom wholly effaces the original versatile impressibility; partly it remains in the unquenchable curiosity that would fain be everywhere and have self participator in or at least spectator of, all events in the world, partly it lives on in nobler form in the romantic spirit of the poet, that without seeking special knowledge, without pursuing special ends, takes pleasure in the boundless variety of things, rejoicing

that it is great enough to supply ever-fresh sustenance to the receptivity of the mind.

And equally early with this vivid conception of the world can be traced the soul's energetic striving after alteration of and dominion over it. Our interest does not cleave long to phænomena that never change; only the more highly cultivated mind can in imagination lose itself in them, because it attaches to them the fulness of its own life. All that falls into the child's hands he begins to work at, first of all destructively, partly from awkwardness, partly as the simplest way of asserting himself in opposition to the objectivity that seems a barrier to his own being; but soon the higher moulding impulse comes into play and seeks to embody its own fancy in a permanent and positive result.[1] We know how dissatisfied a child is with a toy of which he cannot move the parts, or, at any rate, which he cannot move as a whole in various ways; and we know how early and how universally there appears in children an inclination to alter any arrangement of things which they happen to meet with, not because the arrangement thwarts some want which they feel, but because it is, in a general way, a thwarting of that self-will which would not have anything arranged independent of it. And this appropriating grasp which self lays upon the world is manifested in a still plainer fashion. For even less than the fact of having spent his labour upon it is enough to make a child think himself entitled to the possession of a thing; whatever his eye rests upon with interest seems from that very fact to belong to him; much more is this the case with anything which has for some considerable time made part of his surroundings, which has often served him as a means of amusement, and on which he has produced and from which he has received impressions. And the grown-up man copies him in all this; the chance discoverer of some natural product or some beautiful view feels himself an intellectual proprietor, and often has to fight against a temptation to resent as trespass the acquisition of like knowledge by other minds. In

[1] Miss Hamilton's translation ends here.

this way, indeed, all material things—land and the trees which grow upon it, moveable goods and animals—first became the property of man; and it was only from the conflicting claims of many to the same thing that there came to be more definite forms of taking possession.

All this restless desire of action would very soon in life begin to put hindrances in the way of many-sided development, if it were to meet early with objects of such enduring interest as to fill and captivate the mind. And it is true that later in life the choice of a profession does lead to such a narrowing of mental activity and the eventual development of a one-sided instinct, which turns away without sympathy from much in which the unsophisticated mind takes a genuine interest. But it has not been left for us to point out how important as the condition of a better result is the long and helpless childhood of human beings. The restless mobility of a child is hardly likely to meet with anything among his immediate surroundings to cause him such lasting and specially intense pleasure as to become a permanent end and object of his endeavours; and even were this to happen, lack of strength would hinder him from the energetic and steady pursuit of such ends. Thus he accumulates during childhood a large store of ideas which cannot prompt at once to definite actions, the carrying out of which would occupy the mind to the exclusion of other educative impressions. So that what the child can accomplish is but formal and superficial alterations in his surroundings, alterations which produce no striking pleasure of the senses, no satisfaction of pressing wants, and but little apparent result, yet are all the more productive of an enormous number of new perceptions of things and new ideas of the connection between their varying states. Human childhood is not merely, like the sportive youth of animals, a merry holiday-time of sense-enjoyment, it is also a time of learning and of poetry; poetry that is childish indeed, but yet genuine poetry, which with wonderful flexibility and absence of any profound sensuous interests, enters into the relations of things with heart as

well as intellect, and sheds a radiance upon succeeding life, the brightness of which fades but slowly into "the light of common day."

§ 4. The multifarious knowledge so acquired seems at first sight to have no value except as a store of means which may be used for the attainment of ends in later life. But if we look away for a moment from the fact that the distinctive glory of man does not consist in his superior cleverness, in mere cognition no matter what its content, but depends to a very great extent upon the worth and the many-sided significance of the content of our philosophy—if, I say, we look away from this fact, we shall see that the acquisition of a wide and varied store of ideas is obviously advantageous to the mere formal perfecting of human intelligence. It is an idle superstition to imagine that man would be raised to a degree of infinite superiority above the brutes simply by his innate faculty of combining perceptions, even if the circumstances of his life should be such as to make his perceptions most meagre and monotonous; it is only by exercise on the materials of experience that these very modes of combination are themselves developed, and when it seems as though the poverty of external perceptions did not much hinder their unfolding, there is a large amount of compensation by means of education, which we are apt to overlook, and this supplies innumerable traditional starting-points for reflection which the external life does not furnish. Let us now turn our attention for a short time to this gradual development of intelligence.

The earliest stages of this development are almost alike in man and brute. As long as the many-coloured surface presented in the field of vision remains motionless and unchanged, it can furnish no occasion to an intuiting mind to break up the picture into a multiplicity of single figures. And this would be the case even though the mind should be predisposed to analysis—unguided, however, as yet by any previous experience. It is movement which, disturbing the previous outlines and arrangement, first directs the eye to some individual form that, with all its parts continuing

unchanged, detaches itself from its surroundings, and whilst the eye follows it, gains in clearness as a steady identical object, compared with the changing and mutually obscuring backgrounds over which it passes. Thus arise images of things, in brutes as well as in men; but the latter, in distinguishing them by names, express a concomitant feeling occurring at an early stage, the existence of which in brutes we doubt—the feeling that not only does the manifold in every such image *exist* together as a matter of fact, but also that the parts *belong* to each other by virtue of the internal unity of a whole made up of parts, not through the mere external unity of a heap which simply contains a quantity. Now the perceptible world consists, not of innumerable isolated objects which cannot be compared one with another, but of manifold combinations of impressions which fall into a small number of groups, none of which can be expressed in terms of any other. Even immediate perception, indeed, in some cases distinguishes only imperfectly between two very nearly related members in such a group or series, for instance between two shades of the same colour or two tones of nearly the same pitch, and the distinction is more difficult to seize when some time has elapsed between the first and the second of two such sensations, and we have to trust to memory. But, on the other hand, as regards many related members of any one of these series, their likeness stands out with unmistakeable clearness in intuition, this likeness being, at the same time, inseparable from an equally obvious unlikeness between the two. What is common to red and blue, that in virtue of which they are both colours, cannot be separated from that which distinguishes the one from the other, making red to be red, and blue to be blue; but though such a separation be impossible, our vivid sense of the likeness which exists between the two is shown by their common designation of colour. And as the same thing happens in the case of sounds, tastes, smells, and the sensations of touch, groups of general ideas are formed, and the content of each of these is not produced by the combining activity of thought, and can be

intuited, not in a condition of isolation, but only as belonging to those various examples of which it is directly felt to be the uncompounded and common feature. Simultaneously with such groups and favoured by the easy coalescence of related, though not exactly similar, features in the production of one impression, there is formed that other kind of general images in which the parts of a manifold remain distinct although bound up together. These images are of objects such as have been repeatedly presented by perception in a variety of examples, and the individual outlines of which seem to have combined (through the cancelling of slight differences and the accentuation of features common to all) in the formation of a kind of generic image. In all this considered in itself there is nothing by which human intelligence may be distinguished; there is no doubt that similar general images occur among the ideas of which a brute is percipient; some such it must have in order that it may be able to recognise its enemies or the means by which it may satisfy its wants; for the examples of both which occur in its experience are only similar, not exactly alike, and in that fear of the future which brutes sometimes betray, it certainly can be only such indefinite general images of either enemies or wants that hover before them. There is one single feature here which may be peculiar to human ideation; that is, the new impression not only calls up again in our remembrance as an accompaniment the general image which it resembles, but this general image may be looked upon by us as a lawgiving type, which points out how the characteristics of any perception are to be combined, or as the abiding and essential nucleus to which at different times different definite properties may be attached.

In this lies the only differentiating characteristic which distinguishes the concepts of human *thought*, that is, the concepts which actually arise in our unsophisticated intuitions of the world, independent of that higher elaboration which disciplined thinking seeks to give them, and often erroneously imagines to exist in them already. There are many words to which in ordinary usage there is attributed a meaning even cruder than

that of the unsophisticated mode of thought we have referred to. He who speaks of Nature, or Life, or History, brings together under each name an indefinite multitude of individual events with which he is but very imperfectly acquainted He is aware at the same time that each multiplicity is also a unity, but still he does nothing consciously to determine the *form* of this unity by any method which he can specify. And even where this does happen, as in using the proper names of persons (in which case we think of the generic image of *man* as the type according to which the characteristics of the individual are combined), this enlightening and form-determining activity of ideation is nowhere complete or susceptible of completion. For this image of *man*, by which we here seek to introduce clearness, wants a fresh elucidation, in order that it may be shown how its own constituent parts are bound up into a whole. We furnish this explanation by bringing forward the still more general image of *animal*, according to which the characteristics of *man* are combined. We see how this process is carried still farther; if a definition seeks to determine by its own inner law of formation that which is immediately given, referring from this law to the more general species or genus, it merely pushes aside the greater part of the work to be done as if it had been done already. What it relies upon is that the natural mechanism of the train of ideas will have already produced in every consciousness intuitional and intelligible images of this more general species or genus, from which the definition may now start, completing the special image of that particular kind which happens to be in question, by the addition of its own distinguishing marks. It is clear, meanwhile, that the further removed general ideas are from immediate perception of an individual object, the less can we reckon upon their completeness and clearness, and upon general agreement concerning their content; on the other hand, in unartificial modes of thought, every notion will be clearest when it only appeals to that generic image which is one degree more general than itself, and the essential features of which are present to every mind with tolerable

completeness and accuracy. Now if, taking this more general image as our basis, we are to fill in the particular features of the individual object, each of the general characteristics of the first would require a special and particular modification before it could be regarded as a characteristic of the second; for instance, every feature of the general type of *animal* would in the particular species *man* have a special human character. But instead of this task, which even science could never fulfil, both logical definition and ordinary thinking must be content to lay stress on one or a few characteristic features of man, which distinguish him from other kinds of animal, leaving the combination of these features with the other properties to be effected by a kind of vague general impression, in just the same way as the significance of the higher concept *animal* was originally left to be settled by another such vague impression. So little is it the case that we can extract from our ordinary concepts a knowledge of the way in which they have been formed; they even seem to be adapted rather to distinguish their object from what it is not, than to teach what it really is, since for the most part they merely combine with some wholly unanalysed general impression the vague remembrance of a universal to which it is subordinate, and some few distinctive marks which prevent its being mistaken for something else. That even this is at any given time dependent upon the then existing condition of knowledge, that as experience grows, on the one hand some marks formerly regarded as distinctive are dropped, and on the other hand the universal becomes differently and more precisely determined — that, finally, pressed by the special needs of investigation and of everyday reflection, these ordinary concepts are forced to attempt an ever deeper search into and explanation of the unanalysed fulness of their own meaning—all this no more needs to be supported by proofs than does the oft-repeated observation that this task of remodelling is one that can never be completed, and that thus our concepts must remain the ever-changing and ever-developing creatures of thought.

But not only do they, in the course of this progressive

development, at last reach a degree of perfection which is permanently denied to the thought of brutes; they are also unequivocally distinguished from general images (which are for brutes what concepts are for us) by this essential feature, noticed above, that in our thought the *universal* is related to the particular as its formative law. This habit of thought may be difficult to carry out in individual cases, and perilous in many of its applications. Still, if taken in conjunction with the simpler thought of *whole* and *parts* by which the idea of a number of things happening to exist together is changed into the idea of their belonging to one another, the habit appears as a fresh expression of the mind's tendency always to seek for connection and order in phænomena, although perhaps not always seeking them in quite the right way. But this feeling after unity attaches as powerfully to the most obscure as to the most developed concepts, and the assumption that the world and all that is in it can only be understood by means of a comprehensive and ordered system of genera, species, and sub-species, is so far from being an artificial product of disciplined reflection that it has become as it were a part of men's everyday life. I am not referring to the charm which the very name of a thing exercises, and the way in which the mere pronouncing of its name seems to make that known which was before unknown, simply because an assurance is thereby given that the thing has its place in relation to some universal. I only wish to remind the reader of the ease with which a thirst for knowledge is, to its own injury, often satisfied by being merely taught how to bring a particular case under its universal; of the ineradicable desire to make events and conditions intelligible by reference to their place in some system of classification, even when it happens that their true nature can only be understood by reference to the co-operation of their special conditions; of the whole mass of timid or presumptuous logic which has introduced such a variety of sophisms into the treatment of Nature and of life, at one time being brought to a stand by the most insignificant distinctions of

objects, and even demanding different treatment for different kinds of relations, at another time passing lightly over innumerable differences, and requiring a similar treatment of everything which may by some remote possibility be brought under the same generic concept.

And these phænomena in the region of knowledge have an important counterpart in matters of practice. We require that all actions should conform to some rule, belong to some kind or order; the very terms *disorderly, irregular,* testify (quite apart from moral considerations) our disapproval of everything which, as nondescript and aberrant, refuses to fit into our scheme of things. The egotism of individuals bears witness to the importance of this notion of classifiableness by the very contradiction in which it involves itself; no one likes to be described as *a kind of man,* his individuality rises in lively revolt against the compulsion of a standard valid for all, which is thus applied to him; but every one is willing enough, when he wants to justify his claims, to appeal to the fact not only that he is a man, but that he belongs to a definite and favoured kind or class of men. Although the savage tyranny of self-will may perhaps in dumb actions sometimes go so far as to make demands upon another which are founded solely and wholly upon individual caprice, it is very rarely indeed that such demands are made in outspoken terms, and not explained, on some sophistical pretext, as deducible from something universal in kind, as regards man, or Nature, or circumstances. It was not when moral laws, concerned primarily with men's deeds and dispositions, were supreme over all alike, but under the influence of notions of *kind,* of class and rank, that the first foundations of the social fabric were laid. The first thing was to settle each one's caste and status, and then by reference to these to determine the several rights and duties pertaining to him as a man of this or that kind and condition. How widespread is even now the deplorable custom of letting accidental differences of social position harden into ineradicable notions of class distinction and difference of kind, and then deducing conse-

quences from them! One need only glance at the great stream of history in order to see that whenever a recasting of social relations has been in question, the bent of mankind towards Doctrinairism has never failed to come to the front, even in conjunction with absolutely brutal savagery. One of the most important results of civilisation, is a capacity for distinguishing between the cases in which a return to general principles is necessary, and all half-measures disastrous, and those in which we are just as clearly required to put up with irregularity, to regard existing circumstances as the result of special conditions, and to remedy their defects by special changes, by temporary measures, by exceptional treatment. The insight that can do this is rare; generally the more uncultivated a man is, and the more unfamiliar the new vocation to which he may be called, the more he will discover an all-systematizing formalism, a soulless preference for symmetrical schemata; the more he will cling to paltry symbols destitute of poetry or depth of meaning, and tend to treat everything individual as nothing more than an instance to be ranged under some category. But a pervading sense of order is the essential feature of human thought, and we may look upon all the one-sided procedure to which we have referred as an effort to infuse this order, in its simplest and crudest form, into subjects which for the most part are only susceptible of a much more refined application of it.

§ 5. It is not our intention to pursue those further transformations of the forms of concepts which belong to science and not to everyday life. We have only to remember that the general images or concepts of events, connections, and circumstances arise in the same way as those of objects, though to some extent with the greater obscurity and uncertainty which the less independent and intuitional nature of the former would lead one to expect. But we cannot admit that besides these concepts produced by experience, there exist in the mind others which belong to it previous to all experience—innate notions, the original possession of which endows it from the very beginning with a clear

consciousness of the rules by which perceptions are elaborated in thought. We have already decided that the much-abused name of *Innate Ideas* can apply to nothing but habits of action which are a necessary product of our mental constitution, but are primarily unaccompanied by a consciousness of their object and of their own significance, and that it is subsequent reflection on its own action which first makes known to the understanding those impulses which it has already obeyed in innumerable instances. Much has been said of pure concepts of the understanding, which the human mind applies as its own original possession to the impressions of perception, but it has not been pointed out in what way they could be thus originally contained in it, since it may be easily proved that neither in the consciousness of a child nor in that of the uneducated are they to be found already formed as distinct ideas. People have hoped that it would be possible to exhibit the whole number of these all complete either in a tabular scheme or in a consecutive series, and yet there have always been differences of opinion as to what are to be reckoned among the number of these innate necessities of thought; disputes which never could have arisen if in point of fact this body of truths had been originally implanted in every mind, instead of our being obliged to search it out in a course of development which is liable to error and uncertainty.

And, finally, we may remark that if we had succeeded in finding these truths, we could not apply to them any phrase which would be less happy than the traditional one of innate ideas. If there is in us some primitive germ of truth by means of which we could make our manifold perceptions essentially coherent, this germ must be given in the form of *judgments* showing us how to pass with correctness and inherent necessity from the content of one perception to that of another; such a germ would be quite useless if given in the form of simple notions, with regard to which we could not tell what use we ought to make of them. And even in the form of judgments (or, more properly, *prejudgments*) concerning the necessary coherence of all possible experience,

the majority of the maxims appealed to do not appear as known and recognised standards of judging. On the contrary, they influence us in all cases as unspoken and unconscious presuppositions, under the influence of which we do as a matter of fact carry on the further combination of perceptions in individual instances, doing this, however, without any knowledge of the maxims themselves and their essential import. Only when we are expressly questioned concerning the grounds on which our instinctive judgment about things depends, as well as our conviction of the truth of our own views and the falsity of those which are opposed to them, only then is it that these prejudgments, which had before worked unseen, break forth into the light of consciousness. And then we find that some few of them press themselves upon us with the unmistakeable clearness of necessary truth; that, on the other hand, many, when we attempt to express them, lose the undoubted certainty with which as unexpressed prejudgments they had led us; and finally, that with regard to many others, as soon as we seek to detach them from the objects to which they are usually applied, and to express them generally, they stand confessed as errors the falseness of which could not have remained undetected if it had not been for the special and peculiar properties of those objects.

A second careful glance will further teach us that even those maxims, the convincingness of which is not so evanescent, are of very various origin. Only very few of them are independent of all definite content of experience in such a way as to appear as necessary laws of any imaginable universe, and therefore as indispensable conditions of thought in general; many others have only a mediate certainty, and seem to us of unquestionable authority merely because our world is such as it is. In these cases it is the great and universal forms of reality that have impressed us, and accustomed us to regard as self-evident and necessary that which as a matter of fact we meet with always and everywhere. And finally, we may easily see that often the apparent necessity of some definite behaviour of things (which we find expressed in other

maxims) is by no means confirmed by the inconceivability of the opposite, and thus expresses not something that *cannot* be otherwise, but something which in our opinion *ought* to be thus, and would be absurd if it were otherwise. In these cases æsthetic and moral activities of the mind have been working secretly, and have caused us to look upon relations which correspond to our ideal of a perfect world as necessary laws of thought in any actually existing world. The laws of *Identity* and *Causation* may serve as examples of the first of these groups, the idea that mass is necessarily constant and matter indestructible, and numerous other assumptions that we make concerning natural phænomena, are illustrations of the second; men's longing for some world-embracing unity, and in especial their reverence for the notion of this unity, plainly belong to the third. In all these things it is scarcely ever pure intelligence, whether we call it understanding or reason, that dictates to us those assumptions which we regard as inviolable; it is everywhere the whole mind, at once thinking, feeling, and passing moral judgments, which, out of the full completeness of its nature, produces in us those unspoken first principles to which our perception seeks to subordinate the content of experience. And, on the other hand, these presuppositions in our judgment of things are not given to us as finished instruments which we owe to this mind, with all its capacities, but untouched as yet by experience—in which case they would be as it were the result of a harmony produced by mind among all the demands of its intelligent æsthetic and moral elements. On the contrary, it is the actual experiences themselves which stimulate the mind gradually to unfold its nature, and in its encounter with things to learn those modes of action which it finds necessary. All those systems which have imagined that they could exhibit the body of necessary truth as an isolated and complete series of maxims of similar origin, have instead of doing this made a collection of reflections, the production of very various periods, which the human mind in the historical course of its develop-

ment had learned to attach to the material of external perception and to the events of life. Among these reflections there are but few principles to be found which can be regarded as truths that originally belonged to the mind as truths, that is, which are so early and so invariably developed in every mind that all other knowledge is acquired by their help and influence.

Even if our view were different, we should be constrained to limit ourselves to a small number of examples, since our present object is not to set forth all attainable truth, but to describe the manner in which a part of that truth is attained in the natural course of human development. The Law of Identity, according to which any simple object of thought is identical with itself, and the Law of Causality, according to which every change must have a cause, both belong to the small number of principles referred to at the end of the preceding paragraph. Although they are certainly not innate in the mind so far as consciousness of them goes, yet every one may easily be brought to the point of affirming them, however awkwardly, and of recognising them as principles of knowledge which he has hitherto unconsciously followed, and which, since they are necessary, he will still continue to follow, but now consciously. Whence, then, are these principles, and whence the feeling of their necessity? Has external experience, by showing us that things continue quietly unchanged as long as they are left to themselves, and that changes frequently accompany their conjunction, accustomed us to join to the idea of every individual simple object an expectation that it will remain identical with itself, to the idea of conjunction an expectation of change, and conversely to every perception of change the thought of a preceding cause? But external experience presents us with a multitude of contradictory cases; cases of things apparently left to themselves which yet do not remain identical, and of changes of which the causes and the results escape us; from experience, therefore, there could not arise a necessary law of thought, by which modes of operation that (as far as

experience goes) belong only to a part of present reality, should be extended to the whole of it, and to every imaginable future. But if we employ experiment as well as observation, and in every case find that when we have brought about certain conditions a definite result follows, have we not here at once the inner connection between condition and conditioned, and that similarity of result which proceeds from similarity of conditions? This, however, would only justify us in affirming connection between those pairs of events between which our experiment showed a connection; it would not justify us in assuming that a similar connection obtains universally. If, therefore, external phænomena cannot furnish that of which we are in search, let us turn again to internal phænomena, and try if we can succeed in thinking some simple definite object as at once what it is and what it is not, or as changing without any cause of change. There is no doubt that in every individual attempt of this kind we shall fail, whatever may be the simple object on which we experiment; but in itself this failure at any given moment and in the case of any given object, by no means proves that any similar attempt at another moment and in the case of another object must also fail, unless there is something which justifies us in regarding every single one of these cases as a guarantee for all imaginable cases.

Now such a something there is, and it is nothing else than the very Law of Identity itself. The true import of this principle must be grasped and trusted by consciousness as an absolute unconditioned primary and necessary truth, before there can be any question of our being impressed with the universality and necessity of any other special mode of combining impressions, resulting from the mechanism of our mental constitution, and carried out at first unconsciously, and afterwards with conscious perception. The necessity of the principle of identity cannot be proved *for us* from the consideration that it was first valid *in us*, and that we afterwards became conscious of it in the attempt to act in opposition to

it. On the contrary, in order that we should be able to conclude to the necessary failure of all such attempts, from the fact that they have failed in those individual cases in which only we can make any such attempt, with this or with any other necessary law of thought, we must presuppose the immediate certainty of this very principle. We must assume it to be certain that one case is as good as innumerable similar cases, that everywhere, where similar conditions recur, similar results are attached to them; we must be certain that in the whole constitution of our own mind, as well as in that of the things which are its objects, there is a truth and constancy which makes everything to be what it is, which produces the persistence of that which persists, the changeableness of that which changes, the contrariety of that which is contrary; a truth which is the primary condition of the universality and necessity, and indeed of the very possibility of any other connection. How, in fact, could we imagine a connection of any kind between two things, if these two things did not, by the fact that they are what they are, or become what they become, afford to the relation stretching between them, as it were fixed points of support, or enable it to follow the movement of the things in any definite direction? How could any conclusion of ours, or any result in Nature, be established, if that which is or which becomes, that from which conclusion or result must flow, at the same time were or became something other than that which is the foundation of the conclusion or of the result?

It is vain to hope that upon the assumption of universal and necessary laws actually governing the mechanical course of our inner life, any psychology could succeed in deducing from this course alone the unavoidable recognition of their necessity, and the rise in our minds of a conscious notion of necessity; and just as little can we believe that the soul of a brute is fitted to produce this notion. Rather it is distinctive of the mind of man to be able, by reflecting on the cognitive acts it has mechanically executed, to discern in them the presence of laws that reach out indefinitely beyond the particular cases in which internal

experience finds them fulfilled. By such reflection it is that we become aware that there is anything at all to be called Truth, not in the sense of an agreement between our mental representations and what is represented, but as significant of a logical coherence and consequence without which there would be nothing to represent at all, but only a confused stream of disjointed impressions, with no ascertainable connection. It is Truth in this sense that secures to every condition its legitimate consequence, to every phænomenon the coherence and fixity of reality in place of the baseless changefulness of a shifting dream; and in general to every question of the inquiring spirit a stable standpoint from which to work. In the fact that this confident certainty of the existence of Truth is stirred in the human mind when it reflects upon that which passes within it, lies one of the earliest manifestations of its nature, that nature by which it is fitted for Truth, and enabled to transform a mere succession of ideas into Knowledge. This manifestation is one which has indeed a correspondence with mechanical action, but which cannot be produced by it. If we presuppose this one characteristic, we can understand how the mind is afterwards roused by experience to search for and discover individual truths. The mind takes offence at every phænomenon of both inner and outer experience which appears to contradict that steadiness and constancy which it regards as the very essence of truth. Hence, by combination of isolated perceptions, of what is given with what is not given, of what is present with what is past, the mind gradually learns to discover the more definite of those significant universal laws which must be of supreme authority in our world with its existing characteristics, as soon as they are found to stand the test of that all-important standard of truth above referred to.

§ 6. The path of this gradual development is long, and the goal unattainable. Ordinary culture often deviates from it by tacking its reflections on to fragments of experience which we have accidentally encountered, without taking any comprehensive view of experience as a whole, and by carrying on

disconnected trains of thought with short-lived interest and for but a little way, undisturbed by any idea of ultimately harmonizing them. And not only is this the case, but science itself commits many errors in the attempt to group together in a systematic fashion all that which, through the medium of reality and in virtue of the unconditional truth already referred to, has become for us a necessity of thought. Still less does common life possess the universal truths ready for use, and least of all has it a thorough consciousness of them. Yet a haunting conviction of the existence of truth pursues men everywhere, and even where there is no abstract notion of truth, is efficacious as the unconscious power which guides the workings of consciousness. But as to the application of this notion which should be made in the case of individual phænomena, we are only too often deceived by the complexity of the phænomena, and not many examples are needed to show how the most contradictory ideas are associated together in our ordinary consciousness, because of our misapprehension of what it is that we are really seeking for.

If, in order to avoid confusing complexity in any given content, we consider something which is quite simple, we are fully justified in asserting the Law of Identity with reference to it, and in affirming that blue is always blue, and red never anything but red. But alongside this conviction there go on undisturbed, ideas of things which are changed, and though changed remain what they were, of substances which are transformed without ceasing to be, of a being that appears and that both is this appearance and is distinct from it; in fine, of subjects which are sometimes active and sometimes passive, without being deprived of their identity by this variety of predications concerning them. I do not exactly mean that human intelligence errs in representing things thus, but that moved by the unanalysed impressions of perceptions, it plainly applies the principle of Identity in a confused and contradictory way, without justifying, by analysis of given material, the appropriateness of the expressions which it uses

and their compatibility with that principle. And when rising reflection becomes conscious of these contradictions, it often falls into the opposite error, and seeks in the general principle information concerning the nature of things, which the principle itself does not contain, and can only procure on condition of being thoughtfully and justly applied. When reflection makes this mistake, it may deny, as contradictory, all possibility of becoming, of change, and of action; as if the law of Identity forbade that anything should become, or that what is changeable should be permanent, when all that it maintains is merely that of what is becoming, as long as it is becoming we can predicate only that *it is becoming*, and not that *it is*, and that it is not appropriate to regard the changeable as unchangeable. And however immediately these very simple applications may spring from the original signification of the law, they yet require a special justification which ordinary thinking for the most part does not trouble about.

Equally crude are our ideas of the Causal Connection. Sometimes they develop to the contradictory thought that everything—not only the change of that which exists, but also original existence itself—must have a cause, and this cause another cause, and so on to infinity. Sometimes we find associated with them the idea of Chance, which permits individual events to occur causelessly. On the whole, the ordinary notion of Cause and Effect is but a clumsy expression of the necessary law which requires us to connect changes with conditions, and is plainly enough derived from experience of our own activity, and the contrast of the living nature that acts and the lifeless thing that suffers. In cases where we feel sure that we cannot presuppose any internal activity, we seek external causes of change; but where we suspect such activity, we do not look for any external cause, for here what happens seems to need no explanation. And since the inner nature of things is to a great extent unknown to us, we are in most cases at liberty to accept this solution. The great number of intransitive and reflective verbs which we possess is a speaking proof of the extent to which our ordinary

notion of cause has been developed. We say, for instance, that plants grow and clouds gather, that it is getting cold, that the wind blows (*bewegt sich*), that mists fall (*senken sich*). So for us this kind of neutral action which explains itself, this emanating and appearing, goes on unquestioned, until other experiences make plain to us its dependence upon external influences, and then just as one-sidedly there come to the front the contrasted ideas of causes and forces by which change is made apparent or produced in things. Here, as before, the thought in question, which is linked too directly to intuition, is not followed by analysis. Ordinary thought is thus very far removed from such a notion of a law of Causation as may be taken up and used by science; even a regularity of recurrence of some natural phænomena does not lead easily to its development, but is often overlooked, from its extreme familiarity. The wants of man, by forcing him to mechanical contrivances, are much more efficacious in producing insight into the true nature of causal dependence, and from a consideration of the rough instruments which he makes, man advances gradually, till even in investigating the organic world and the workings of his own mind, he brings in this question as to the ground of the uniformity among effects, and of their quantitative variations.

We cannot here follow the development of man's natural Metaphysics, which is at first very untrustworthy; the progress of science and the development of its fundamental Ideas are reserved for later consideration, because they require to be preceded by a notice of the historical conditions under which they unfolded and progressed. If we would seek for an example of the average height to which in a general way refinement of knowledge may attain in the development of the human mind, in cases where it is stimulated by nothing beyond the influences of ordinary life, we may find one in the organization of language. I am not here referring to the wealth of words and the multitudinous expressions for abstract thoughts with which the reflection of individuals has enriched language, and which as far as the unlettered crowd are concerned either

remain wholly unknown, or become current in common use only after degradation of their meaning; what I refer to is the grammatical and syntactical organization of language. We find that this presents from the earliest times and among the most various peoples, on the one hand just as decidedly a certain agreement in the way of apprehending things, as on the other hand many national peculiarities to which scope is given within the lines of this agreement. That there can be words at all which, as names, denote some particular content, is only made possible by a consciousness that every such content is something that remains the same, that is constant, and therefore nameable. If there are everywhere forms for substantives, verbs, and adjectives, this shows that the mind must have developed everywhere the notions of Thing, of Becoming — *i.e.* of relating activity — and of Quality, and that it is accustomed to connect among themselves those objects which it has apprehended under the form of these notions. The article or pronoun shows moreover that the content referred to, whether it be thing, or event, or quality, is apprehended in the unity of a cohering whole, and neither Nominative and Accusative, nor any other forms which are of similar importance in syntax, would be possible unless they had been preceded in consciousness by the contrast between the Subject and Object of actions — the usual form of the common notion of Cause. If we follow further the significations of words, and see how the terms for inner dependence and abstract relations go back to intuitions of movement, and are borrowed from relations in Space and Time—if we see, further, how far the symbolizing activity of language has gone by its subtle instinct in discovering analogies in the region of perception for every content of thought which transcends experience—if we do this, we shall be convinced that that struggle of the untrained intelligence towards knowledge which is embodied in language, and on account of which man regards himself as a born philosopher, consists chiefly in the reference of multitudinous cases to a small number of comprehensive typical examples. The

elucidation of one example by another that lies nearer to intuition, long remains a favourite resource of the undisciplined understanding; the elucidation of all examples by their common law is first attempted by science. Now in this respect the stock of knowledge embodied in language is altogether above the level of the untutored intelligence of the individual; the clumsy use which an uneducated person makes of the words which he finds ready to his hand, shows that instead of his comprehending their logical and syntactical value with intelligent insight, he is himself being moulded by them. On the other hand, language is often a hindrance to the cultivated understanding, because it does not, with sufficient pliability, follow thought in dealing with abstractions not capable of being intuited; but at the same time it is higher too than even such a mind, because of the infinite wealth of connections which it has observed and distinguished, to think out and analyse all of which would be a task that the individual must despair of accomplishing.

Thus there arises in us the dawn of a Knowledge of Truth, partly through the attempt to attain ends by the help of things, partly through the stimulus which we receive from the educative influences of speech. This dawn may grow to fuller day under favourable conditions—if, after the satisfaction of the most pressing wants of existence, the desire to beautify and enrich life leaves time for the quieter impulse of investigation to work—to lose itself in the course of events in the most various ways, and to become conscious how comprehensive and inevitable is the network of relations which embraces all things. Then as our search elucidates things, we find that a chain of proof may travel far and wide from its point of departure in sense, *i.e.* from a fact of perception, and, guided by universal laws, may be carried on within the mind, and yet that its conclusion (like a projectile which describes a wide curve) may correspond exactly and certainly with some new fact of sense-perception. Though the road which our thought took was different from that along which the event travelled, yet both finally converged, and it seems to

us as though the connection between all parts of the world were so intimate that every point may be reached from every other in a thousand ways, the dominion of this all-pervading connection being nowhere interrupted. Human culture does not everywhere advance so far, but at however low a stage it may be arrested by unpropitious circumstances, yet at least as Nemesis or Fate, or—lower still—in the distorted forms of superstition, clinging to ghosts and magic, this heritage of the human mind, the inborn certainty that necessity reigns, comes to light somewhere or other in the course of reflection, just as it did too throughout sense-perception, as we previously noticed. Thus, then, the difference between human intelligence and the ideation of brutes is very striking in respect of the immeasurably wider intellectual horizon of the former, but there are no special forms of connection which are peculiar to human thought. Brutes, however, in the succession of their ideas are simply coerced by those laws which we, while also governed by them, yet recognise as necessarily true, and ourselves make use of for the extension of our knowledge, and for the establishment of science. Nor could it be otherwise. Brutes destined to live in the same world as ourselves, obliged to accommodate themselves to it, exposed to the influence of the same outward conditions, and reacting upon them with not dissimilar activity, require that the connection of impressions and the consequences flowing therefrom should in them follow the same laws as in us, and lead to corresponding results, and that hence in their minds thought should work in the same way as in ours.

# CHAPTER V.

## CONSCIENCE AND MORALITY.

The Philosophy of the Feelings—The Meaning of Conscience—Pleasure and Pain as Actual Motives to Action—Pleasure and the Good—The Notion of Worth and its Connection with the Notion of Pleasure—Pleasure as an Ethical Principle—Emotions of Sense—Emotions of Self—Egoism and Universalism—Development of Morality—Basis and Content of Morality—Capacity of Becoming Conscious of the Infinite the Distinguishing Characteristic of the Human Mind.

§ 1. HOWEVER vast may be the body of truth which men, stimulated by a thirst for knowledge, may have acquired—to whatever degree of refinement insight into the connections between phænomena may have developed, and though under favourable conditions it may have risen to scientific consciousness of the laws of those phænomena—yet, after all, the genuinely human character of our philosophy consists much less in the extent and clearness of its intellectual horizon, than in the warmth of colouring communicated to it by the unceasing interest of our feelings in its development. The soul receives joy and sorrow through impressions from the outer world, and finds its expectations and efforts at one time deceived and hindered and at another time satisfied and favoured by circumstances; hence there is nothing upon which it can reflect with more sustained interest than on the power for good or ill of this world of things in which it finds itself, and on its own place therein. While a brute only notices and remembers individual cases of the hostility or friendliness of things which have immediately concerned himself, the human mind is led by its greater mobility of imagination to take a more comprehensive view. Guided by the idea of those active impulses which he feels in himself, man at first ascribes the hindrance or furtherance which he receives from circumstances to similar purpose

in the outer world, in which he thinks he sees the multifarious action of a living will, that moves all things to reciprocal activity. And as good or ill befalls us when we meet the waves of this broad stream of circumstances, so we imagine that its course brings pain and pleasure to things, and that everything feels the special fortune or misfortune of all the relations which subsist between it and other things. As experience grows, the living colours of this world-picture gradually pale, without however quite weaning us from the thoughts which produced it. We discover absence of purpose in most of the occurrences in which inanimate things are concerned, and we find no unambiguous token that they are conscious of the impressions which they receive from one another. But we would fain believe still that vague sensibility and desire, and unconscious inclination and aversion, are activities to be found everywhere in Nature. At last we content ourselves with the modest conviction that, at any rate, the variety of the universe is to be understood as but the many-sided expression of a single Idea, and we insist on the unity of this Idea not so much because it offers to our scientific thirst for knowledge an explanation of the coherence of phænomena, as because it permits us to refer to it, as to their source, all the joy and all the misery of existence, and to regard them as preordained developments. For the fact that besides all which exists and which happens according to settled laws, there is also enjoyment of both, also pain and pleasure, this fact cannot, it seems to us, be regarded as a mere addendum to the order of the world; all necessary connection of things would be to us incomprehensible if we could not regard it as simply the foundation upon which to build up a world of joy and sorrow.

In this fashion do we philosophize, agreeing or dissenting, enthusiastic or despairing, according as the circumstances of life may have made our mood bright or overcast. On one hand is the joyous enthusiasm which thinks that it beholds the all-beneficent harmony of the universe spread open before it; on the other hand, the melancholy reflection to which as it

closes its consideration of human affairs "all things here seem out of joint." Both views imply the natural assumption that reality has no meaning except as it is productive of happiness; but the one regards this expectation as satisfied, to the other it appears to have been unjustly disappointed. And finally, when poetry brings before us with picturesque profusion of thought the hoarse tones of pain or the ecstatic utterances of joy, and seeks far and wide for illustrations of its own experience, it always aims at connecting the fate which it describes with the order of the world's events, either as something which fits into it without any incongruity or as presenting a contradiction which the course of events is certain to explain; this course of events being conceived as really tending ever towards the realization of universal and justly apportioned happiness, whatever may be the apparent direction of the mere surface of the stream. And in whichever way we may at last quiet this imagination of ours, that will pry into the heart of things, it is certain that in all cases our view of the relation of the course of events to the requirements of feeling has an incomparably greater influence upon the character of individual human lives than the results of science, which few seek and few understand. And this holds good whether our view be plaintive or gloomy, desponding or enthusiastic.

§ 2. Not only our enjoyment of life, but also our mode of action—here vigorous enterprise, there passive submission to fate—is subject to the same influence. The opinion which we form of the worth of things, and of the tendency of the course of events, inevitably determines also our opinion of our own worth and significance as individuals, of the pretensions which we are entitled to make, of the ends which we may hope to attain, of the duties which are incumbent upon us. Now, on the one hand, the course of human life is distinguished by this far-reaching reflection from the life of brutes which follows unreflectingly the influences of the moment, and is guided by experience in the choice of means but hardly at all in that of ends; and, on the other hand, an ancient tradition has assigned to man an innate Moral Law

which rules his sentiments and a Spiritual Revelation which determines his ends, as two steady points of support for his naturally irresolute endeavours. What original foundation for both we have to seek in the human mind, or whether it is the teaching of life that first produces these fruits, are considerations that will occupy us for the remainder of this Book.

We found that in the case of our knowledge of the world, not only is an acquaintance with particulars left to be gained by the labour of experience, but also that the small number of universal and legislative truths by which this labour must be guided, are not innate in their detailed completeness; we only possess originally a single germ of higher insight which, according to the varying favour of circumstances, may be developed to a more or less orderly or more or less tangled growth. We feel a tacit conviction that as regards the foundations of morality the case is similar. If it is the destiny of man that only by his own active effort can he realize the requirement of his own thought, it follows that he will not find in himself as an endowment of his organization, a finished and complete ideal of action, but that he will have in the course of his development to work his way to the possession of this ideal. It has, indeed, been thought that just in this respect man's moral nature is more favoured than his intellectual nature—that he is furnished by the latter with but few unambiguous principles of judgment, and that even these cannot without many errors be carried out in the face of contradictory appearances; while to the most poorly endowed human mind (no matter what may be the condition and extent of its merely intellectual acquirements) Conscience presents the inviolable rule of conduct and the supreme objects of faith with unvarying clearness. But a comparison of different stages of culture in human life has already furnished a warning against trusting incautiously to this view.

We must give up the attempt to base belief in the existence of God upon the agreement of mankind. Moods and presentiments that point to something unknown and invisible are

indeed developed in every human soul under the influence of the experience of life; but, except under favourable conditions of development, they hardly produce more than a state of objectless fear, to which brutes also would be subject if they were not too devoid of thought to collect into a permanent group the individual frights which they experience. It may indeed well be that the unerring voice of conscience is not altogether silent in any one, but what *are* its affirmations and commands? These vary widely, according as men's circumstances vary, and as they have been differently moulded by events. It is common for a limited and one-sided round of experience to accustom us to particular ways of looking at things which, because they meet with no contradiction within our own narrow experience, assume for us all the appearance of indubitable evidence. It is well known how victoriously such prejudices can withstand the truth, even when this is presented to us ready found, and we have not the trouble of discovering it for ourselves. The practical prejudices to which we are accustomed by education, nationality, custom, calling, and the spirit of the age are no less tenacious of life, and we cannot deny that under their influence many an indifferent action and many an unimportant rite is regarded as a sacred duty; indeed, many things are so regarded which the culture of other times and other places would condemn as inhuman barbarism, and the violation of these so-called duties is attended by the same mental disquiet which we think ought to result only from the transgression of truly moral laws. As human knowledge is animated by faith in the existence of truth, but must leave it to investigation—which often blunders—to discover in what this truth consists, so we may almost say that the second essential characteristic of human nature is that it everywhere carries about with it the thought of Duty and of Obligation; but what it is that corresponds to these notions, and what kind of action they require, it has to find out by degrees in the course of its development. I need not insist upon the twofold character of that which we here affirm: on the one hand, the power of experience to

develop; but, on the other hand, and just as important, the original presence of the germ upon which this power operates. Satisfactory results will never be reached by the attempt to show that a consciousness of obligation can be produced in a soul which is wholly blank, by the mere impressions of experience.

§ 3. If we attempt to mark off the sphere of what *we do* —a sphere difficult to define—from that which merely *happens in us* or *through us*, we seem to find the first ground of division in the feelings of pleasure and aversion which sometimes do and sometimes do not accompany mental events. If a manifestation necessarily results from the action of impressions upon us, without the worth of these impressions being measured by our own feeling of good or ill, we do not in such a case find cause to distinguish the manifestation from other effects, as an action of our own. And this holds even though the disturbance produced in us by the stimulus should be accompanied by ideas of which we are conscious, and though the final reaction should be called forth by the intervention of a train of thought. The manifestation would then indeed have a more complex origin, but it would still be essentially similar to the results which might be expected from the mechanical excitation of any machine of very complicated construction. In the mere acquaintance with and representation of things, it is only a part of our nature of which we are conscious, and a mere chain of ideas that passes through our mind seems to occupy but a limited portion of our being, and to leave the condition of the rest unaffected; the manifestation which is attached to such a chain of ideas is regarded by us merely as an event that has its origin in the Ego and not as an act of the Ego. It is in feelings of pleasure and of pain that the Ego is first conscious that all its individual states belong to it and that its whole nature is affected; whatever proceeds from pleasure or pain appears to us as a reaction of our whole nature. We consider that suffering in the true sense is not present in cases where a creature merely undergoes disturbance of its condition, but only in cases

where there is in addition a painful consciousness of this disturbance; we do not predicate action merely on account of some manifestation which a creature makes, but only when we consider the manifestation to have been produced by feelings of pain or pleasure. I do not mean that among the reactions which are really due to feeling, we cannot distinguish from the purposed action many involuntary movements; but, on the other hand, it is not by simple antecedence of will and endeavour that we can mark off actions from mere operations. Will and desire themselves are what they are only by their consciousness of relation to something worthy in their objects. If the efforts of an intelligent being could be divorced from every shadow of pleasurable and painful interest in their object, they would be transformed into that lifeless impulse towards activity which produces indeed physical events, but certainly not actions.

If therefore our first inquiry has regard not to the ideals which ought to determine action, but to the powers which do everywhere as a matter of fact give rise to it, we cannot deny that the effort to hold fast pleasure, or to regain it, and to avoid pain, are the only springs of all practical activity. To what various stages of development this common tendency shall conduct the different families of living creatures depends on two conditions. It depends first upon the variety of means which the delicacy of its bodily and mental organization furnishes to the pleasure-needing creature for the attainment of its end; but, on the other hand, it depends also on that peculiarity of its nature which determines what it is that shall be pleasurable or painful to it, and which limits one being to a monotonous round of enjoyment, and opens to another a rich choice of attainable good things, among which it can attempt to contrast the greater with the less, the nobler with the baser, the holy with the unholy. It is not our intention to consider more particularly here the first of these conditions, and the degree of prudence and perseverance in human effort which result from it, because the discussion

of historical development will bring us back to this task by and by; but it is clear that the second condition includes considerations from which we must seek for an explanation of the distinction between human morality and the impulse of brutes; and this is a question the universal significance of which now demands our attention.

It is a familiar and often hazarded observation that liking and disliking cannot attach to a simple impression, but only to a relation between several impressions. I doubt the truth of the observation from our present point of view. Whatever may be the relation between two impressions, its being apprehended not with indifference, but with a feeling of its pleasantness or unpleasantness, cannot proceed from the fact that the relation is what it is, but only from this, that being what it is, it is in harmony or discord with the creature by which it is apprehended. It is not what passes between two objects unconnected with us, but what passes between each one of them and ourselves, that constitutes the spring of our pleasure and pain; and either pleasure or pain may be awakened by any simple impression according as it disturbs the conditions and activities, the impulses and habits of working which it encounters in us, and seeks to divert them from their natural direction, or maintains, enhances, or favours their progress in this direction. Now, doubtless among the causes which produce such effects in us, we must reckon connections between several related impressions, and we may even admit that it is by such that those feelings are aroused which are of the greatest importance, and are the most significant in human civilisation. But in no case can we imagine that the worth of even such impressions as these depends merely on the reciprocal objective relation of the various objects concerned, independent of any estimation of the worth of the relation by reference to its harmony either with us who apprehend it, or with some other relation, with regard to which the question of worth has already been determined by the standard here required. Unquestionably, that which only corresponds to a momentary and accidental

condition, or some individual peculiarity of the mind which it affects, is of less worth; and that is of more worth which harmonizes with the general and normal features of the organization by which the mind is fitted for the fulfilment of its destiny. That would be of supreme worth which caused satisfaction to an ideal mind in its normal condition, a mind which had been purified from all tendency to diverge from its proper path of development. Beyond this summit there is no foothold, and the idea of an object possessing worth, which is altogether unconditioned, which does not show its worth by its capacity to produce pleasure, shoots beyond the mark.

There is no doubt something to praise in the austerity with which practical philosophy has sought to free moral precepts from indirect reference to the personal interest of the agent; but this austerity was wrong in seeking to undo the plain and indissoluble connection between the notion of Pleasure—despised, and in most of its applications despicable—and the notion of Worth in general. When Kant believed that he had found a universal formula for moral action, in opposition to the aims of self-interest, he was candid enough to admit that he had not discovered in it the precise ground of its binding authority over us. And why, in fact, do we consider it as a matter of course that the maxims of our action must fit into a general system of law? And which are the maxims which do not thus fit in? Plainly those which, if generally followed, would produce general disorder and the frustration of all effort. But what is this acknowledgment of the importance of order, and of the possibility of carrying out our intention, if it is not either (*a*) a grand and comprehensive utilitarian principle taking the place of special and narrower ones, or (*b*) the confession that maxims different from those demanded would lead to general misery, and are therefore to be rejected? Other systems, while eschewing all pleasure, assure us that the moral law is the one important thing, that the relation of a finite being to the Absolute, like that of any point of the periphery to its centre, is a relation of

subordination, that human will runs parallel to the development of the infinite Idea, and works for it. But how if the Absolute should not desire such a relation? If the submission of the periphery caused only vexation to the centre, could it be still maintained that this relation was notwithstanding to be maintained as unconditionally worthy in itself? This question should remind us that the sacredness of the command depends upon the will of the Supreme Being, upon His capacity of receiving pleasure or pain from our obedience or disobedience, and upon that relation of ourselves to Him in virtue of which we find our own blessedness in His pleasure. If we eliminate from our conception of the Supreme Being every trace of feeling, and transform our conception into that of inflexible physical force, a power which, though intelligent, is devoid of feeling, we see at once that the subordination above referred to is altogether without worth. We should, in fact, in such a case follow with sympathy the course of each finite being which broke the tedium of this eternal and monotonous development, and, choosing the better part, sought to "work out the unconditioned freedom and independence of its own personality." Why this autonomy should itself be of unconditioned worth, may indeed at first seem obscure, but not for long. We recognise in it the pleasure of a generous pride, just as we recognise in self-sacrificing love the real power which impels any point in the periphery to revolve about its centre (as hinted above). If we are further told that conflict is in itself displeasing, we reply by a simple and unqualified denial; but we allow that quarrelsomeness being displeasing, the quarrelsome element in conflict, namely, the ill-will of opposing factions, must be displeasing. The abstraction of this element would leave, in each contest of two wills, nothing more than a living drama in which we should feel interested; ill-will being left out of account, such a contest would be only very indirectly displeasing to us; it would be displeasing not in itself, but because of the unavoidable although undesigned displeasure which it would rouse on both sides, or because of the wasteful expenditure of powers in cancelling one another

when they might have been used to produce a common stock of enjoyment.

What is the meaning of saying that there may be certain relations between different wills which merit unconditional approbation? Is such a relation to be found anywhere in the world? Are there anywhere wills which, apart from all feeling, actually exist and can enter into relation with one another? And if it were so, if the world consisted of beings that were merely intellectual and volitional, and of which none, whether finite or infinite, could anyhow, or at any time, be capable of feeling pain or pleasure, in such a case what could be the significance of those ideals of action which then would have no one by whom they could be approved? As a matter of fact, would it be an absolute moral requirement that one existing condition, which caused neither pain nor pleasure to any one, should be replaced by another condition which would likewise produce no increase of wellbeing to any one in the world? Must we believe that the universe is so taken up with ceremony that it is concerned with nothing but the realization of formal conditions? The too stern morality to which we have referred, may easily conceal from itself these final results, the transformation of all moral action into, as it were, a mere mechanical putting together; for certainly no one is likely to set up individual moral laws in which there does not lurk some hidden reference to the pleasure which is so much despised; in other departments of life these extreme consequences do occasionally appear. For instance, it has become the fashion to depreciate the emotional effect of beauty, and to seek its essence exclusively in various formal relations of Ideas to each other; hence result works of art the worth of which may be proved to demonstration, but which cause pleasure to no one. And in attempted political constructions, too, how widespread do we find this idol-worship of formal principles! It seems to many that everything necessary has been done if only some form of political organization has been reached, no matter whether the ingenious construction produces a modicum of real, genuine

happiness, or whether all its members lead a life of tedium and misery.

These errors are wholly foreign to the unsophisticated mind. To such it seems natural, but not morally meritorious, that a man should be concerned for his own welfare; and that to do good to others and increase the sum of general happiness is the one task the fulfilment of which comprises all his moral obligations. We do not here intend any laudation of merely thoughtless good nature, or of that weakness which can never say no, and buys the present thanks of him whom it inconsiderately gratifies with future reproaches for its too ready compliance. As in Nature it does not happen that each individual creature is immediately produced and developed by an exercise of power directed expressly to that end, but carries on its growth in accordance with the general laws of the universe, from which it draws its support, so happiness that is allotted to all the members of a compound whole will need a system of production and distribution, the general rules of which cannot be transgressed without hindering the attainment of the end. On this the mind relies, and when we find that conscience prescribes to us practical laws, the conduciveness of which to our highest happiness we do not directly see, we yet do not doubt that such conduciveness is there, and that all the harshness of the laws which obtain in the world exists not for its own sake, but for the sure guidance which it may afford to the desired and gracious end. We ourselves would be the last to depreciate these laws, seeing that we have so often maintained the indispensableness of an ordered mechanism for the realization of all that is good and beautiful, and this in just those cases where it seemed to others that everything was accomplished directly through the unregulated goodwill of an Idea. But just as little are we inclined to over-estimate these same laws. As long as we hold fast the opinion that no mere mechanism exists simply for its own sake, it cannot be that for us all reality exists only for the sake of existing, and that all action is merely for the sake of producing something which did not exist before. Somewhere or other, this

external apparatus and all its orderly sequence of events must find its goal in an inner world of pleasure and of finite enjoyment.

§ 4. We should, however, be much deceived if we considered moral laws to have only a derivative worth as necessary maxims of a system for the production of general happiness; the majority of these laws, even of those which prescribe a kind of action that has reference to special conditions, and which are not of universal validity, are much more directly related to the production of objects of enjoyment. No one will venture, for instance, to set up pleasure in any form, or pleasure at any price, as an allowable end of action; but it is not conscience only, but also its own logical absurdity, that would hinder the adoption of such a maxim. Pleasure in itself is an incomplete thought so long as we are not also told what it is that is enjoyed. I do not refer to the external impression from which it arises, but to the specific content of the pleasure itself when it has arisen. Just as it is impossible to feel in general without feeling something, or, to speak more correctly, without feeling in some particular way, as *e.g.* in the ways which we call red or sweet, hard or warm; just as it is also impossible to imagine a sensation as merely greater or less in degree; so is it out of the question to talk of pleasure which is simply pure enjoyment, and not the enjoyment of something, of pleasure which is merely greater or less in amount, merely more or less evanescent, but without qualitative content. And as red is no copy of the ether waves which cause it to be perceived, the sensation being a translation of this special stimulus into the language of the soul, and every other stimulus having some other such translation corresponding to it; just so the special pleasure which we receive from any individual impression, or any relation between several impressions, is no copy of these impressions, merely followed by a sense of wellbeing connected with it, and qualitatively alike in all cases; the specific feeling is in every case rather the immediate indivisible transference into the language of sensibility of the worth peculiar to this particular

case of excitation. We *speak* of pleasure and pain in general, just as we do of movement in general; we can abstract from the direction and velocity of the latter, but no movement can occur without having velocity and direction; in the same way pain or pleasure can never *occur* in this formless and colourless generality, but must always have, or rather must always be, something definite in form or colour, as in fact we should say that movement is velocity which has some given direction, and not that it has velocity and direction. People are theoretically mistaken as to what is best in pleasure when they think that it consists in a person's finding *his* pleasure or *his* happiness in something, according to the common phrase. It is not at all the case that we first recognise excellence unmoved, and then bring forth in response a definite quantity of our pleasure, giving this in exchange for the worth of impressions in greater or less quantity as if it were a kind of intellectual small change used indifferently for all purposes. It is rather the case that we are constrained by the inherent worth of things; and though, of course, our pleasure must in some degree depend upon our own nature, from the fact that we can only feel those impressions of which we are susceptible, yet the special differences between our pleasurable feelings (which have their foundations in our own capacity of reception) can by no means be reduced to merely quantitative differences of a uniform feeling of subjective wellbeing.

With the surrender of this inappropriate mode of representation there would fall away many a complaint which one is accustomed to hear brought against pleasure. It would no longer wear the invidious aspect of a kind of egoism which uses the things of the world and all their rarest qualities merely as fuel to keep up its own temperature; it would be seen that pleasure itself is rather the light in which existing reality first shows forth all its objective excellence and beauty. And there could not justly be repeated the old reproach, that the notion of pleasure is wanting in an inner principle of judgment from which we might learn to distin-

guish its higher and nobler from its baser forms, or to distinguish some one form as the highest of all. If we would but get rid of a useless scientific affectation, we should be forced to acknowledge that no system of morality which has attempted to derive the circle of duties or of moral ideals from one supreme principle, has accomplished more than a comprehensible logical subordination under this principle of that which is said to be derived from it. But the certainty that this derived system really contains ideals which are of binding authority for us, and that some of these are of more worth than others, these are results that were never deduced from the principle, but from the direct teaching of conscience, to which special reference was made at every step of the deduction. Though other views base our moral convictions upon certain relations between wills, which are regarded with absolute approval or disapproval, yet they are as far as possible from maintaining that we can from the idea of such a relation discover what particular actions are to be approved or disapproved; they refer to conscience for a decision. I know not why the notion of pleasure should be under any obligation to furnish more than other principles. And yet perhaps it does in a certain sense really do so, but we will for the present be satisfied with bringing in expressly that appeal to conscience which the non-hedonistic moral systems can only nominally do without. It is the fact that individual forms of pleasure are different in kind, that one is superordinate or subordinate to another, that each while positive in itself may become negative in comparison with others, and that only the satisfaction of conscience itself—that is, pleasure in the agreement between any individual pleasure and this supreme legislation—is exempted from such fluctuations of value. We have now only to add some remarks on the way in which these impulses to action and the consciousness of their worth have their origin in the natural constitution of the human mind, and in those beginnings of its development which are universally met with.

§ 5. The pleasure of sense is not only the goal towards

which all the activity of living creatures originally moves, but we find that in civilised life also it is the hidden spring of the most various actions. Living creatures do not by nature endeavour, independent of external stimulation, to increase their sum of enjoyment; they do not know by instinct in what direction the greater good lies. It is experience that first shows them this, and that arouses partly a desire for the renewal of pleasure that has once been tasted, and partly a longing for enjoyment not yet experienced. The only consideration capable of restraining the mind from implicit obedience to these impulses, is a knowledge either of the disadvantages attached to their immoderate gratification, or of the greater happiness the attainment of which this gratification would hinder. But the natural course of things lessens the danger of this excess, and leads to an acquaintance with the greater good. At least at a very early stage it has done so much towards this that a far larger proportion of our efforts is directed towards the more refined pleasure of the inner sense than towards mere bodily enjoyment. In simple modes of life not yet complicated by civilisation, there are a large number of wants which men have to provide for by their own individual exertions; moreover, the moments of supreme bodily delight are very brief, and in the long pauses between them the active receptivity of the mind is not in abeyance. Thus, passionate devotion to one particular kind of enjoyment meets with but little encouragement; while the mind in the mere search for means stumbles upon many impressions by which it is insensibly attracted and enchained. It cannot help lingering over them, and giving itself up partly to the charm which they have for scientific curiosity, and partly to the moods awakened by their importance and meaning. So it comes to pass that from many causes we hasten but slowly towards the goal of enjoyment, and in the intervals of sensuous fruition the impressions thus got by the way come back to the mind, which gradually becomes accustomed to prefer that more equable and moderate pleasure afforded to it by steady and beneficent employment of the inner sense.

The pleasures of a rhythmical though objectless play of impressions, of social amusement, and of exercising one's own strength and skill, occupy in the most primitive condition of peoples, as well as in advanced civilisation, a far larger space than the desire for immediate physical enjoyment. And even when we do, with a shock of disagreeable surprise, see men struggling for this, we find that their effort is seldom directed towards the bare gratification itself; that which is desired seems desirable, not so much for its own sake as for the sake of a host of thoughts which are connected with its importance in reference to the deeper life of the mind. The worth of the original end, poor in itself, is enhanced by the special various and refined interest of the preparations, accessories, and recollections belonging to it. Graceful surroundings, harmoniousness of external impressions, æsthetic adornment of life, and an undisturbed pleasing kind of existence are the requirements of this refined sensuousness. Its satisfaction, both in the most cultivated conditions and in the most primitive and unorganized societies, is sought by men in modes of action which seem rather to express delight in the production of pleasant and graceful objects than the craving to reap some pleasure arising from them.

Both corporeal life and spiritual life are in all cases ultimately subordinate to the general laws appropriate to each, yet both pulsate in various individuals with various degrees of strength, and not without special variations of susceptibility. It is only with reference to the most violent and powerful impressions that we can calculate upon their producing in all subjects similar amounts of pain or discomfort. On the other hand, stimulations of medium strength, which are too intense for one, are felt by another to be too insignificant and monotonous to keep attention awake; and more than this, there may exist in one case unaccountable aversion towards a stimulus which in another case is passionately desired. These differences concern not only the objects of external sense, but also the formal relation of impressions by which our æsthetic

feelings are excited. Great variety of impressions, the shock of surprise, the constant tension due to uniform mood or orderly sequence of Ideas, any of these may be to the temperament of one a necessity, to that of another torture; a mode of combining impressions, or a trick of manner, which to one is an agreeable ingredient of life, may be regarded by another with a distinct feeling of contemptuous aversion. To be tolerant in such matters, and to acknowledge that no mode or fashion can command universal acceptance, and that one's own fashion is no better than others which differ from it, this is decidedly a result of education, and but seldom the natural endowment of a happy disposition. We are essentially tyrannical in such things, and we cannot deny that we feel a tinge of contempt for him who does not like our favourite dish, and that nascent hatred of a mild kind is stirred within us by the man who obstinately differs from us on this point. Of course these inclinations and aversions become much stronger when they are connected with many points of agreement or conflict; they become, when so related, the more inexplicable to him who feels them, for as the complexity increases there becomes less and less possibility of clearly surveying all those separate causes which coalesce to form a strong instinctive feeling. As long as all the individual members of a society are bound together by strongly-marked uniformity of tribal character, the phænomena to which we here refer are not of frequent occurrence, but they certainly afford a foundation for national hatred, by which we early see individual races of men separated from one another just as much as the different species of animals. The higher development of civilisation entails a greater variety of individual character, and with it a greater susceptibility to offence from the peculiarities of others, but also at the same time, as a kind of compensation, a proportionate increase in the intensity of love and friendship towards chosen objects. Thus between the persons associated together in a civilised society there arise strong ties independent of any express relation between them, and many and important indeed are the results which these give rise to, working by an unwritten

law, and never wholly to be explained. Before moral reflection has put a curb—never quite effectual—upon the caprices of individuals, these caprices have introduced a manner of thinking which, whether openly or secretly, has always been at the foundation of men's conduct to one another, and often enough has been candidly avowed as a rule of action, the adoption of which is a matter of course. I mean the principle of goodwill to friends and hatred to enemies. Both dispositions are strengthened when to the effect upon us of that which another is, there is added the impression produced by his behaviour towards us. If we look at a child beating the stone against which it has bruised itself and caressing the pillow on which it rests, we see in its behaviour an example of the way in which gratitude and revenge are developed as the great natural springs of action which have moved men in their conduct to each other from the earliest times. How little man is raised above the brutes in all this is plain enough, but it would serve no useful purpose to attempt the concealment of those impulses which stir so strongly within us. Before the human mind has found that there are in it other inviolable laws of its action, it has no choice but to follow these natural inclinations—without which, indeed, the good in us would have little warmth, the conquest of evil little merit.

The real business of all our efforts is to maintain our natural disposition against whatever is adverse to it, and to seek whatever suits it. But each man is not only an individual specimen of the general type of his kind, he also develops by the aggregation of his special experiences into an individual personality, presenting a new standard by which to judge impressions, a standard by which their worth for us has to be estimated. From the excitation of this part of our nature there arise personal feelings, the general character of which results from the fact that they are the feelings of *a Person*, but which wear a different aspect in the case of each individual; for the number and position of sensitive and vulnerable points always depend upon the original or acquired

idiosyncrasy of the personal being who happens to be in question. Now absolutely naked Egoism must be regarded as the only motive power of our activity, until a higher development has discovered better ideals of action. In actual life, however, it is everywhere counterworked by the most various excitations of our many-sided human nature, so that there has never been a time in which there has prevailed a general reign of self-will, carried out with blind disregard of anything extraneous to itself, after the fashion of the great powers of physical Nature. It is inconceivable that any being that lives and moves could get rid of the receptivity in virtue of which it is subject, on the one hand, to the involuntary inclinations and aversions which we have indicated, and on the other hand, to the unwilling recognition of that which is foreign to its nature. There is, moreover, in egoism an internal contradiction which acts as a remedy against the consequences of the principle itself.

Our unreflective self-consciousness reckons without more ado as part of our own personality all the bodily and mental powers which we have received as an endowment of nature. Even before the encounter of individuals who have conflicting claims to the same object, each one compares and measures himself with others; and with an easy freedom which would seem natural and just were the relation in question one between two natural forces, we pass from a perception of our own superiority to another in power of work, to that pride of the stronger and that contempt for all that is weak and ugly which we find vigorously expressed in all early stages of civilisation, and never quite inoperative even in conditions of more advanced development. For certainly we are much more inclined to measure our duties and performances according to what we are and what others are, than to set out in the first place from universally binding types of disposition which do not mention any individuals, and which one must acknowledge before one can classify in subordination to them the distinctive circumstances of any particular case, so as to show grounds for an unequal division of personal rights and

duties. But I doubt if there is not in this very pride itself an indestructible germ of higher human development. We never compare ourselves with what is not of our own kind, or at least with what cannot be easily classed, as of kin with us, under the same general notion. We do not desire to be tougher than a rock, or mightier than the powers of Nature; if we exalt ourselves above our kind, the pleasure of this pride is not separable from an attendant feeling that we have accomplished with superior individual capacity some task common to us all, that thus measured by some well-established standard, on some well-established ground of natural comparison, we are found to excel others and thereby earn the right to a better opinion of ourselves. From this point of view pride in bodily perfection is justifiable and natural, as well as the haughtiness of intellectual superiority. Civilised peoples and wild tribes may look down upon one another with reciprocal contempt; in doing this the judgment of each is in fact one-sidedly right. We may also carry out a similar comparison between ourselves and the brutes; they can be comprehended under the common notion of living creatures moved by internal activity, not only on account of their similarity in organization and mobility, but chiefly because their life touches ours at a thousand points of conflict and reciprocal service. There is an intelligible self-satisfaction in surpassing in cunning and strength, creatures which Nature seems to have intended to compete with us for enjoyment and for the spoils of life. Man's pride cannot dispense with an unspoken appeal to these grounds of justification for his self-exaltation, and it is just when he recognises the authority of a general notion that he makes the first step towards self-conquest.

We may go further and add that it is also a secret necessity of egoism that the very preference which the egoist assumes for himself on the ground of a general notion, should itself come under some other general and valid notion, and thus that he should regard himself not simply as preferred, but as partaking of a superiority which is intelligible in itself, and which, though

it belongs to many, is yet comparatively rare. A man may be very proud of being the only one of his class whom fate has spared among a whole people; remembrance of the past would then make clear the worth of the position, all the honour and dignity of which would now concentrate in this one individual. But it is incomprehensible that any person should aim at being the only one of his kind who has ever existed; every great ambition seeks the name of power as well as power itself, and titles that are wholly unknown do not, as might be expected, exercise more but less influence than others over men's minds. Any wholly unique superiority, however great it may be, is unintelligible; hence it is natural that self-regard should always seek association with a class to which many belong, and that which is anywhere regarded as supreme has always begun by being susceptible of comparison. The same dependence of self-regard on Universals appears also in intellectual development. We are proud of having, by our own individual acuteness, penetrated to the hidden truth of complicated phænomena, and jealously regard this gain as the achievement of our own effort. But we are miserable if others do not recognise it; for as long as this is the case it remains truly our view and ours alone, in a sense that we do not desire. In order that our acquisition may be valuable even to ourselves, it must necessarily be recognised as separable from our own individuality, as the nature of the thing itself, as universal truth. In this is to be found the one respectable excuse for fanaticism, the eagerness of which to gain acceptance for individual views is greater the less these views are merely superficial commonplaces, and the more profoundly their content appeals to the many-sided whole of human life. Therefore, however odious fanatical zeal may be in any department, one must admit that it does not proceed from the mere desire to enforce subjective opinions, but that what a man fights for in such cases is the honour of something which, though of universal validity, has been discovered by him, and the non-recognition of which torments him. So that fanaticism is an extremely natural activity of the mind, and its fierce

zeal exists in even the most morally developed societies. For how prevalent is the superstitious belief that it is a duty not only not to act contrary to one's conviction, but also to carry it out at any price where there is no obligation upon one to act at all! Then, this misunderstanding being met by an admiration which is just as much a misunderstanding, there arises the worship of those great men who are at bottom the slaves of their own humour, and who, at the very time when they think that they are serving only the cause of universal truth, are seeking to impose upon the world the forms accidentally taken by their own fancy. They are to be excused, for we all err after the same fashion.

The hidden shackle which egoism carries about with it in its inevitable dependence upon the justification of a universal is very soon transformed into an external bond; pride requires for its own satisfaction that others should know too, and give their recognition. The lust of rule, even in its coarsest form, cannot be content with mere physical submission, or with absolutely destroying an opposing will; it desires that the will should still exist, and even that it should be so far free that it can at least recognise the ruler's strength. The intoxication of power is impossible in absolute solitude; it would not be enough even for the most savage negro chief that the head of an offender should fall at his nod, if there were not at least somebody there to chop it off, and by his obedience to the nod to recognise it as an exercise of power. And though all should obey in total silence, yet the potentate would know that the slaves, as they obeyed, must observe one another; there would be no pleasure in such an exercise of power if the factual obedience of one could not be exhibited to others. This deep need which egoism feels for justification by the recognition of others, explains the extraordinary restraining power which the judgment of public opinion everywhere has over our efforts. Continual reference to what will be thought of us by others who, for us, represent the universal as contrasted with our own individuality, takes the place of men's own conscience—more or less successfully and completely—in

the earliest historic times as well as in the early stages of individual development and in those low conditions of culture in which a part of our race is always found. This dependence upon the opinion of others becomes at once stronger and nobler in cases where natural relations give direct authority to some individuals, and this authority is strengthened by countless bonds of benefits bestowed and grateful remembrance. Hence the most barbarous people has never undertaken an egoistic war of all against all, but has always distinguished friends and kinsfolk from enemies and strangers. Especially natural is the awe of children for those who bring them up, and that obedience towards protecting power and wisdom which is the beginning of all other virtues.

And here we must not forget that not only is there implanted in man's nature the rebellious pride which revolts against what is alien, but that likewise our unconquerable impulse towards imitation shows that at the very time when we are struggling not to let another surpass us, we do in fact acknowledge his actual superiority. Indeed, the less distant and many-sided are the ends for which the uncivilised man strives, the more is he inclined to admire the strength and grandeur of others and to submit his own power to theirs. If it were not for the fortunate existence of this characteristic, the possibility of social life would be hardly conceivable. This capacity of self-subordination develops into a faith and devotion towards chiefs and leaders in which there is no doubt a germ of genuine moral evolution. But this morality is not regulated by general laws of feeling, but is grounded on the personal worth of those whom the actions in question affect. Here *evil* means wounding the soul of him whom we love, and whilst towards such an one all the virtues of benevolence may be developed, even to the point of refined tenderness, fierce hatred and revenge towards all enemies may go on undisturbed. And children too, up to a certain point, only understand punishments which are given in anger, and in which the parent's pain is plainly shown; chastisement calmly given seems to them merely a groundless and exasperating

infliction of suffering. It is only later that they learn to know that there are general rules of action which are binding even when their transgression is not accompanied by any perceptible disturbance of the comfort of others.

§ 6. The authoritative precepts which men received from their teachers in the early stages of civilisation did not contain moral instruction in the form in which we, who live under the influence of Christianity, are accustomed to receive it. These precepts were at first indications which had reference rather to commercial relations and the status of persons than to mental dispositions. They concerned moral ceremonies, and required a particular attitude of mind towards every object, and a particular demeanour in every relation, without giving general principles by which the will might be guided in the multiplicity of possible cases. The content of this traditional morality itself had not grown out of universal principles, but was the product of experience, which had taught men that in certain conditions of life, in a certain temper of society, in cases where certain occupations and immediate aims were made necessary by circumstances, there was some particular form of reciprocal behaviour, and some particular code of individual rights and duties which would go furthest towards the general satisfaction of the claims of all. The structure of such a system of traditional morality will be the more solid, the less its formation resembles that of the statutes of a society which is of mushroom growth; that is, the less arbitrary it is, and the more gradually it has grown up through the efforts of individuals who felt themselves oppressed to improve their condition; and the system will last on unquestioned as long as men's circumstances, temperament, and intellectual horizon continue unchanged. What every one finds already accepted, what he sees obeyed by others, and is himself called upon to obey by a thousand warnings, partly articulate, partly the voiceless warnings of circumstances, all this seems to him as self-evident as those intellectual assumptions in the belief of which he has grown up. Every infraction of this traditional code, be it what it may, is punished by that

uneasiness of spirit and remorse which attends any breach of long-established habit.

We must acknowledge that a very powerful consciousness of duty and of moral obligation may exist under such conditions of life; but the moral worth of such morality may vary to an infinite degree. It depends upon the mental and physical constitution of the members of any society whether wise or preposterous rules shall hold the place of absolute binding moral commands. In our judgment of things, all depends upon the notions which we form of the significance of our own being, of the dignity proper to man, and of the ends which he should attain. When an Indian tortures his captured enemy, this is no proof that he is not guided by some Idea of right; by so acting he affords the conquered man an opportunity of upholding his honour by that silent endurance and contempt of pain which seem to him the ideal of manly perfection; and he himself, if the same unlucky fate should befall him, endures as great suffering with equal fortitude. In his willingness to be measured by the same standard by which he measures another, he is no doubt led by a sentiment of savage justice which fails of attaining its true end. When the dignity of human effort is depressed by physical want and a monotonous existence, bare of all wealth of thought, when each sees in the other only a creature with capacities of animal enjoyment, and not an intelligent being every hour of whose existence should be devoted to the accomplishment of a sacred task, it is not surprising that the estimation of the worth of human life should fall, and that one man should sacrifice another to his own ends and caprices, with little hesitation, and without demanding that he should be treated by a third person in any but the same fashion. When we shudder at the thought of the atrocious cruelty with which many savage tribes treat their own kindred, we may also reflect on the stupidity of the submission with which it is all endured. What is evidenced by both the cruelty and the submissiveness is not the total absence of any sentiment of justice, but only a failure

to understand the worth of life. And not only the depravity of the South Sea islanders, but also the advanced civilisation of classic antiquity, shows much moral hardness arising from this defective insight into the significance of human life.

From instinctive obedience there is a gradual progress to conscious principles of action, due partly to the conflict which any individual mind always finds between its own impulses and prevailing moral customs, partly to changes in the circumstances in which the customs originated, partly, in fine, in the restlessness of reflection when it has once been awakened—reflection which even without the stimulus of personal interest will not be withheld from the consideration and investigation of all objects with which human life is concerned, including even the binding obligation of morality. It is remarkable that of the two directions which this reflection may take, the one is at first entered upon only as it were by stealth. For usually thought does not aim primarily at determining the general views which should guide us in all cases in which we are likely to be called upon to act, and yet language at a very early stage contains names for virtues and vices which show us that the merit and demerit of such general modes of thought and action have not remained either unobserved or unestimated. But, as a rule, reflection first fastens upon the notion of the acting subject, and seeks to find in the nature of the human creature reasons for the kind of action which are appropriate to this nature. Thus it happens either that reflection turns to the investigation of natural desires, of the necessities of life coarse or refined, and of those forms of human effort which have grown up of themselves, and seeks so to order life that all these may have an equal opportunity of development and satisfaction; or the dignity of man is regarded as the all-important consideration, and refined reflection requires that sentiments and actions should be in correspondence with it. The national and historical differences which we see in men's notions of, *e.g.*, honour, depend upon the various stages of development attained by their view of this dignity of man, this worth of human personality. Hence,

whenever a society wants to get rid of some tradition of morality and habit, it generally bethinks itself of laying down afresh the universal rights of man; a proceeding that is extremely unpractical, since nothing is more difficult to formulate than these rights in any case in which there is wanted some guidance for action under existing circumstances, but that is at the same time an evidence of men's predominant inclination to seek the supreme rule of life and conduct in the nature of the agent, and not directly in the intrinsic worth of the actions themselves.

Reflection, however, comes at last to believe that it cannot discover what man is merely from a consideration of his factual nature; or perhaps rather the truth is, that by this very consideration our attention is drawn to many strivings to which his nature prompts, and the object of which is not mere self-preservation, but the attainment of some end existing in imagination. It is impossible for the mind which has been roused to reflection to consider human existence without asking, What is its origin, what its place and significance in the world, what will be its end or what its future life? There have indeed been philosophic schools, but never nations, that (without connecting human life with religious views of the plan of the universe) have imagined themselves to possess such complete insight into human nature that they could deduce from it the code of moral duties. We believe that we are called to be workers together in the construction of a spiritual order, and however obscure its plan and the import of our own share in the work may be, still we feel that everything which seems to us to be a duty has its final ground of obligation in its correspondence not with the conception of our nature as it is in fact, but with the end to which it is destined. And this destined end consists not in mere self-development, the impulse to which works through the germ and as it were from the past into the future, but in movement towards a goal which is set before us.

Meanwhile religious views may contain as serious error as any other department of human knowledge, and although

the ordering of men's actions in accordance with the will of God is a great formal principle, we know of nothing which can guarantee us from misconstruing this will. The only way indeed in which we can interpret it is by combining our speculative philosophy with our moral sentiments; and it is a piece of good fortune which is by no means a matter of course, if the one-sided views of both prove to be mutually counterbalancing and do not produce a mere summation of error. In fact we can ascribe to heathen religions little more than this, that they did by the assignment of divine origin, consecrate those significant institutions of social life, the indestructible worth of which is not at all times of equally convincing clearness to the untutored mind; and also that they infused into the whole of life a pervading sense of dependence upon a divine order. On the other hand, they did not altogether neglect to indicate the dispositions on which the worth of the individual person depends—still they left this task for the most part to the judgment of living feeling, which is led by reflection to the approval of one mode of action and the disapproval of another principally by a representation of the pleasure or displeasure which such action would cause to us if we were the persons affected by it. And it was just here that the natural dispositions of different nations—in some cases good nature that was without merit, in others guiltless barbarity—had greatest scope for producing the most various moral constructions, the result sometimes of delicate susceptibility for noble feelings, sometimes of a wild inclination to savage and cruel conduct; and there run through all certain ideas of right and duty, which, however, are connected with individual actions after the most illogical fashion, sometimes justly and sometimes in a wholly perverted way.

§ 7. The hasty survey of the history of culture to which we have been led, and of the variety of moral development which we still see existing in the different branches of the human race, will have corroborated the presupposition which we have already ventured concerning the foundation of ethical life in our mental nature. As knowledge arises unperceived

from the excitations of experience, it develops a host of prepossessions, partly true, partly erroneous; if it takes to self-examination, it finds, as the one thing of which it is immediately certain, belief in the existence of Truth in general; but what the content of truth is for us, and how much of it we can discover, depends partly upon the content of our experience, partly upon the attention and acuteness with which we are moved to observe the processes of our own minds. Just in the same way there arise from the original nature of the mind and the silently working influences of circumstances many prepossessions, some true and some erroneous, concerning what we ought to do; if we examine ourselves, we find that at first it is only belief in Duty in general and in binding laws of action that stands out with clearness and self-evidence; but what these laws are, and how far we can comprehend them in their purity, depends partly upon the influence of external conditions of life, which moderate or excite our blind impulses, partly upon the accuracy with which, in reflection, we separate the general commands of Conscience from the individual forms in which, as applicable to the particular circumstances of our own life, they first press themselves upon us. From the earliest times the human race has observed external Nature, has used the materials and powers thereof, and reflected on its modes of action—it has early explained many individual points, and early succeeded in many applications of natural products, and even in many a forecast of the future. But all this was only a hasty scaffolding full of instability, made faulty everywhere, both in theory and practice, by the inexactness of but half-true analogies; the dominion of Thought over Nature, and the subduing of Nature by means of a trustworthy science of practical arts, first became possible when an intellectually well-endowed people succeeded in discovering Mathematics, that is, succeeded in combining into a scientific whole particular truths which had been already instinctively known and comprehended by many.

It is somewhat similar in the moral world. There have

always been good and bad impulses in the human heart, and always, too, such a rule of conscience that at any rate on the whole human life has been preserved from the wholly blind unreason of animal desire, and sensual passion has at least been kept in check by some fixed landmarks of recognised rights and duties; many a region of moral life has been early illuminated, and the worth of many a good disposition and of many an ethical institution has become plain betimes to the minds of men; in all ages we encounter numerous features of moral sensitiveness. But all this morality, such as it was, continued to be as fluctuating as the imperfect knowledge of Nature above referred to; the way in which men applied the precept, that we should do to others as we would they should do to us, depended on the strength or weakness of their nerves, and on the ardour or apathy of their sensuous nature. Justice and fidelity and faith may in a certain sense be formally exercised in blood and cruelty and outrage, as well as in the greatest effeminacy of peaceful enjoyment, in voluptuousness and uncleanness. One part of our conscience, that which speaks of our reciprocal duties, is soon satisfied, and this the more easily in proportion as the claims on life and enjoyment of all concerned are the less. But that other part of conscience which enjoins upon us to make very large claims on existence, can only raise its voice in proportion as insight into the destiny of man and his place in Nature increases. This nobler morality is never attained without the most active co-operation of the intellect, indeed never wholly without the co-operation of really scientific reflection, yet indeed never by these alone, the experience of life itself is indispensable—life that in the increasing multiplicity of its ethical relations is ever bringing into consciousness fresh distinctions which before, to a blunter sense, seemed indifferent, but now to the growing moral sensibility seem as if they ought to be included in the science of human nature. Although it may be, and certainly in our opinion is, the case that an indestructible core of good is innate in men's consciences, and that, moreover, the goodness of men's natural disposition prevents this universal

formal feeling of Right from generally and directly sanctioning relations which are contrary to the true work of humanity—though all this may be so, still we must hold to our conviction that the untutored mind of man is by no means capable of producing the clear insight into all moral commands which seems to us so natural because it flows forth to us from the fountain of Christian education without any effort on our part.

§ 8. If we cast a comprehensive glance over the foregoing considerations, we are led back to the question with which we set out. Every animal in the wild state lives through the whole course of development possible for creatures of its kind, unless it suffers untimely removal through natural circumstances; and even where domestication at the hand of man produces in animals a more marked development of certain capacities than would have resulted from their natural surroundings, yet they never diverge noticeably from the sphere of ideas and aims proper to their species. In the mental life of the human race there are such immense differences that one might almost doubt whether amid the variety there really were at bottom any common measure. Yet we believe that there might be found certain definite features, characteristic modes of working, which, occurring in all human souls, bring them together into a common class, but by infinite differences in the degree in which they are present in different persons, cause all the variety of individual character. We have tried to show that this common and indestructible feature of the human mind consists in the Idea of valid and binding Truth and the sense of Universal Right and a Universal Standard by which all reality must be tried. We have also sought to indicate the greater or less height of development which these may attain in the course of life. We believed that we could perceive even in the merely sensitive life an inclination to assign to every content of sensation its proper place among others, to find in every tasted pleasure that there was some intrinsic excellence in the thing enjoyed, to seek experience in all directions; not merely in order to procure for self the advantage of a pleasant enlarge-

ment of life, but to seek, in inseparable connection with this, to provide in one's very enjoyment a place where the worth of things and events may have existence for consciousness. The same impulse appears again in language which, however poor it may be, is never a mere collection of exclamations in which disturbance of mind has sought an outlet. All language bears the impress of a universal and sovereign order, according to which the relations of things have inherent connection. So language prepared the way for knowledge, or was its earliest and most natural expression; for we also found that a clear consciousness of the existence of universal and necessary Truth raises the cognition of the human mind above such trains of ideas as occur in the psychic life of brutes. Finally, we found that we, like all other living creatures, have part in pain and pleasure, in a natural impulse to seek the one and avoid the other. But the self-judging Conscience, and the ineradicable Idea of binding Duty which in us accompanies action and feeling, distinguish human creatures, as members of a realm of Mind, from brutes whose vital activity depends upon feeling merely. If we choose to sum up under the name of the Infinite that which stands opposed to particular finite manifestations, we may say that the capacity of becoming conscious of the Infinite is the distinguishing endowment of the human mind, and we believe that we can at the same time pronounce, as a result of our considerations, that this capacity has not been produced in us by the influence of experience with all its manifold content, but that having its origin in the very nature of our being, it only needed favouring conditions of experience for its development.

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[1] Cf. Book VI. ch. i. § 1, especially pages 4, 5.

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[1] I have tried to make plain the antithesis in this Chapter between (1) *real, Reale, Realitat,* and (2) wirklich, Wirkliche, Wirklichkeit, by writing *Real, Realness* in the text for (1). As this way of marking the difference did not occur to me until the Chapter was in print, the question of making previous Chapters correspond could not be considered.

# BOOK VI.

## THE MICROCOSMIC ORDER.

# CHAPTER I.

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§ 1. BYGONE times which are beyond the reach of our own recollection seem to imagination extremely obscure. All the serious interests of life and all the trifling and folly by which we ourselves are stirred, are so closely bound up with clear and definite images of our surroundings, that we feel perplexed and astray when we would picture to ourselves the same varied wealth of existence in times divided from the present by an infinite series of changes by which the background and accessories of life have been transformed We almost fancy that in those olden days the sun must have shone with a different radiance, that the voices of Nature must have spoken in different tones, and the world have lain in twilight as contrasted with our present life of noontide brightness. History indeed depicts for us on this sober background great deeds and mighty events, but is for the most part silent concerning the small causes which combined to produce them. How the heroes of classic times were housed and clothed, what was their manner of speech, and how they filled up the blank intervals of time between their mighty deeds, is left for the most part to be determined by our own wandering fancy. There are but few periods of human history which have left us, in works of art, speaking monuments from which, besides the glory of heroic deeds, we also learn something of the stirrings of men's minds, the philosophic views, the conflict and the joy from which sprang

those great results. But however truly and naturally poetry may reproduce for us many of the features of everyday life, it must naturally leave many gaps, and it is most difficult for us to ascribe to the thoughts of such far-off personages in their treatment of common things that familiarity and supple ease upon the vividness and completeness of which our own sense of life principally depends. Every delineation of long past times which we attempt seems to us true in proportion as it emphasizes particular points of importance, jumping from one to another—and this not only because, on account of our lack of historical knowledge, we are unable to clothe the skeleton of narrative with the flesh and blood by which its different parts were connected in reality, but also because it is extremely difficult for us to get rid of the notion that in those old days everything was said and done after a stilted fashion that would have suited the immobility of marble statues. If in the writings of antiquity we come across some graceful trait instinct with life, some touch of unaffected fun, some vivid description of scenery sketched in a few careless strokes, how great, even now, is the concourse of wondering interpreters calling upon us to admire this classical revelation of genuine human nature! As if we could have expected anything else—as if we might not have supposed that a cultivated people of antiquity would be susceptible to all the minor charms and beauties of life, and would have found expressions for their emotions as adequate as those which are familiar to the mouth of every modern booby! No doubt the course of history has by degrees produced variations of colouring in human imagination, and greatly widened its scope by increasing knowledge of men's earthly abiding-place, by intercourse between nations, and by gradually enlarging acquaintance with the world of Ideas; but not the whole of life is included in this forward movement; there is a region of human existence in which, at all times, the same ends, motives, and customs recur without any alteration. All the generations that have passed away have dreamed and observed, loved and hated, hoped and despaired, worked and played, just as we do, and those who

come after us will do the same. The same passions which move us, the same intriguing calculations of greed and ambition, the same hidden motives, or the same unreserved devotion of affection, which we praise or blame in one another—all these have from the earliest times worked in human hearts. And though external results exhibit various forms and dimensions according to the direction and degree of culture at any given time, there is still no doubt that we are mistaken if, putting faith in a foolish analogy, we imagine that we can find among primitive men nothing but the inconsiderateness and empty-headedness of children.

This it is that we mean by the *Microcosmic Order*—the impulses ever fresh and ever the same, out of which have sprung the many-hued blossoms of history, the eternal cycle in which human fates revolve. It is indeed true that this order may not be strictly a cycle, but that the apparent recurrence may include some hidden progress. Still even we, who live in times in which at any rate the outward splendour of progress is unfolded more vividly than ever before our eyes, even we may say to ourselves that the true value of our inner life is but slowly if at all increased by all this. There arise no fresh springs of enjoyment which had not flowed before, or if indeed the springs are new, yet that which they distribute is still but the old pleasure for which our nature is designed; our cognition may be enlarged boundlessly, but the results almost always lead us back to thoughts which men have had long ago. It seems as though former ages had extracted from different and perhaps poorer material those same treasures of happy or exalted feeling which we with far greater expenditure of scientific and technical power imagine we are discovering anew. In the ordinary view all our labour is for the most part only a more extensive preparation for life and not itself a fuller life, though indeed we frankly confess that this is not altogether true. Progressive culture is not unlike a majestic waterfall which, seen from a distance, seems to promise great things, and which yet when we look nearer does not appear to shower upon the soil of life a greater amount of refreshing

and really fertilizing spray than was afforded for the refreshment and satisfaction of the quieter life of antiquity by the more modest stream of a less splendid civilisation.

We cannot renounce the hope that in this flux and reflux of human development there may be found a tendency towards some finite goal; but before we attempt to trace a plan of historic progress and training of the human race, we would linger for a while over the stationary aspect which is at first presented to us by the struggles and the destiny of men. The spectacle is one which may be regarded with very various feelings. We cannot without an emotion of melancholy see the same evil, the same passions, the same seeds of all wickedness recurring in every age; but, on the other hand, it is a consoling thought that every age has also had access to everything in which men's hearts can find real and essential happiness, and that every age in its own fashion—a fashion which satisfied it—had part in that higher world which has indeed become clearer to us, but is not on that account grasped more strongly by our minds. Our intention for the present is to seek in the nature of human intelligence, and in the ever-recurring conditions of man's life, the ready-made instruments with which Providence works in history; to seek out, that is, the natural order of the world, regarding which we may in a later chapter ask, To what end does the Supreme Will bend the course of its uniform progress?

§ 2. Such being our aim, attention is in the first place attracted to the conditions of external Nature under which we are placed, and their varied influence upon us, whether obvious or unobserved. In so far as these circumstances affect our corporeal life or provide us with means for the satisfaction of our wants, their action is on the whole plain, and in a more detailed consideration than we can here attempt, nothing more would be required than to establish in special cases the relative worth for civilisation of each one of these influences. But reflection is very commonly disposed to take a more profound view of the relation between man and Nature, and instead of measuring the gain or harm which we receive

from the latter, or seeking to find the direction which it gives to our action, people prefer to speak of an immediate and more mysterious sympathy which binds man to Nature, and especially to his dwelling-place the earth. Indeed, they prefer to speak of the earth as not merely his dwelling-place, but compare the relation between him and it to the intimate relation subsisting between mother and child, or between a parasite and the organism which supports it; they speak of the powers and tendencies to development which are inherent in the earth as being repeated under more significant forms in the bodies of men; of every internal fluctuation of telluric life as finding an echo in changes of human organization; and say that what earth herself vainly struggles to express, receives a spiritualized manifestation in the constitution of conscious beings.

We have already remarked at length upon the great extent to which the character of organic beings inhabiting the surface of a planet, is determined by the special nature of the planet itself—in respect, that is, of the materials which compose it, and the conditions of mobility and capacity of combination which it prescribes to them. We have referred to a view according to which the connection between the earth and man is different from that now indicated; a view according to which not only is man forced by the nature of his material abiding-place to use particular means for the attainment of *his own* ends, not only is he provided by its continual influences with fresh material which the organism appropriates and elaborates after *its own* fashion, but moreover the whole of this human life is after all only a mystical repetition of the life of the earth, and of its internal tremors. This view seems to owe its convincing power to the strange inclination which men so often have to regard what is unintelligible and indemonstrable as having pre-eminent truth and profundity, especially in cases where the unintelligibility is such that a sort of mysterious awe may attach to it. There is no occasion to deny any one of the actual facts which are usually brought together with reference to the reciprocal relation which we

are discussing, but we may be sure that it is only a capricious liking for obscurity which requires that they should be judged from this particular point of view.

How often do such perverse considerations begin with a reference to that alternation of sleep and waking in men, which is in sympathy with the day and night of the world, and to that emotion of dread when darkness sets in from which no one is altogether free! What in fact are night and day for the earth? Is it anything more than an arbitrary play of fancy to call the earth asleep because the noise ceases which we and the other animals are accustomed to make during the day-time? Or because there are no longer those oscillations of ether which by day make it light to *our* eyes, but affect the earth merely by causing a rise of temperature which extends only a few inches below the surface? What other activities are there which rest during the night? Or what dread and fear is there in Nature itself, with which we are in sympathy? It is in us that there is light or darkness, in us that there is serenity or fear, and neither the one nor the other results from our being affected by some pervading condition of the earth, but from the fact that alterations of outward circumstances, indifferent in themselves, are at one time favourable, at another time unfavourable to the requirements of our active nature. Such circumstances act upon the sensitive constitution of our mind, which feels not only how much but also in what way they aid or hinder us, and is able to connect all this with various trains of thought; and these circumstances, so acting, produce mental conditions which are our own property, and are not mere participations in a universal life such as Nature is certainly not capable of. How often, too, is it said that with the changing seasons of the year the bodies and souls of individuals suffer from sympathetic affections, and even that in the course of geologic ages the very nature of men rejoices and mourns with the youth and age of the earthly sphere itself; that convulsions of Nature correspond to all the revolutions of human history; that the temperament and national fancy of the inhabitants of any country

are directly affected by the conformation of its land and the prevailing hue of its sky! We would not deny that these statements have a certain basis of fact; but it would be better to try and find in each individual case the means by which any natural circumstances have produced in organic life an impression or an echo of themselves. One gains little more than the weird charm of a ghost story by exaggerating with devout admiration what is incommensurable and irrational in these circumstances, instead of trying to remove it by close investigation.

One cannot think without serious regret of this perversion of thought which has, as it were, taken up the mantle of astrology. It has not merely delayed the commencement of more exact research, but has moreover introduced a general fashion of romancing about phænomena which is supposed, with but little show of reason, to involve some specially profound understanding of them. It would no doubt be interesting to investigate historical fluctuations in the bodily and mental condition of mankind in their relations to the physical alterations of the surface of the earth. The history of epidemics teaches us that every visitation of any pestilence encounters different receptivity and various modes of reaction in living bodies, and we can mark out considerable periods of time within which the human frame has a special predisposition to sickness of some one particular type. It is probable that the same combination of inner and outer conditions which causes this striking one-sided susceptibility produces also in persons who are in a healthy state some peculiar modification of general condition and tone. The higher mental interests of mankind might thus at different times be modified by various emotional conditions, sometimes by a relaxed apathetic state, sometimes by a state of great and anxious excitability, and it may possibly be the fact that the peculiar influences of outward Nature upon man in every age have left their traces in the productions of that age, in the colouring of its poetry, in the nature of its favourite superstitions, in the general direction of its intellectual powers. But the most necessary rule of such investigations would be not to try and find what is not there and

not to over-estimate these influences of Nature as compared with the much more obvious influences which are to be sought in the uninterrupted transmission by education of the same wants, problems, interests, and sorrows from one generation to another, and in the solidarity of social life. The assertions of parallelism between natural and spiritual revolutions are for the most part innocent of any such cautious procedure. It is as easy to understand how widespread and devastating disease is developed on the direct path of immediately causal influence, by a great social upheaval with all its train of unusual bodily and mental exertion, privations, and wretched substitutes for the ordinary means of subsistence, as it is to understand how, conversely, striking natural events, earthquakes, inundations, or epidemics have caused social movements to result from physical necessities. Accounts of plagues in times most remote from one another unite with melancholy unanimity in showing us how quickly all the moral obligations of order, duty, and affection are dissolved under the influence of terror, how excited and terrified imaginations become incapable of any sober judgment, and the wildest superstition, alternating with the densest folly, rages unchecked. Yet it can hardly be, that any great historical revolution has arisen entirely from such a source; if it were so, the storm of revolt would be allayed by the alleviation of the physical distress which aroused it. To seek here for any more mysterious connection between cosmic and human life is but to follow a will-o'-the-wisp. It is easy to bring forward the facts that the downfall of Grecian civilisation in the Peloponnesian war, the last struggles of the Roman empire, the rise of Mohammedanism, the Crusades, the discovery of America, and the Reformation were contemporaneous with devastating epidemics; but when these coincidences are adduced, it is forgotten that at many other periods of less historical importance, and in countries not included in the great stream of historical development, similar plagues have sometimes raged under like conditions, and sometimes, having first arisen under unknown conditions, have spread by means of

the ordinary channels of communication to districts with the social circumstances of which they had originally nothing to do. Plague and yellow fever have continued their ravages in their native haunts down to recent times without any connection with great political events, and it is hardly credible that an outbreak of cholera in India should have been in necessary correspondence with contemporaneous revolutionary movements in Paris.

The same insecurity hovers about our views as to the influence of climate upon the character of a people. We cannot seriously decide offhand that the backward civilisation of negroes is due to the blazing sun that beats down upon their heads and makes it impossible for them to gaze upwards, and by heating their blood to fever point, inspires them with ungoverned passions. Even at the equator the sun is not in the zenith day and night; and when we think of the relaxing and yet exciting effect which our own greatest summer heat has upon ourselves, we forget that in consequence of the long acclimatization of the negro this effect may for him have become so modified as to be merely one of those pleasures of existence which are regarded as matters of course, and are certainly not self-evident barriers to the progress of development. The monotony of the tropical year in contrast to our changing seasons, has also been adduced as another hindrance in the way of advanced civilisation. There are undoubtedly present vital changes which we as certainly feel, changes produced by the transitions of the seasons that cause alterations in our bodily economy, but these changes are little known to us in detail. The mental effect of these natural circumstances is to be found rather in the facts which they present for our observation than in the impressions which our senses immediately receive from them. We learn abundantly from the songs of poets how significant for our emotional life are these great periodic alternations of decay and resurrection to life, with all the hopes and remembrances that attach to their different phases. Not only do we here see our own destiny symbolized in a thousand images appealing to the senses, but also a deeper

feeling for the slowly passing phases of human life, and the characteristic advantage of each may certainly be connected with this clear marking-off of time into divisions. Such occasions for thoughtful and self-examining reflection no doubt occur less effectively where blossoms and fruit are always growing and blooming and ripening at the same time as the fresh shoots are budding forth; but even with ourselves the impression of human transitoriness is softened by the way in which the gaps left by death are unobtrusively filled up every moment by creatures newly born into the world. How different it would be if the human race, like the vegetable life of these climates, all together growing old, or blooming in fresh youth, were to die off completely in fixed periods and be replaced by a new growth! But in such a case, who could deduce the absence of historical recollection and historical progress among the black races from the absence of clearly-defined seasons of the year?

The character of the African continent, its isolation and inaccessibility, without bays or gulfs, has seemed to many to be mirrored in the mental constitution of the negro. We cannot deny the influence of this conformation of the land, though we may not hold that it consists in this inexplicable mirroring. It is to be found in the material hindrances to intercourse between nations presented by a wide extent of continent without a corresponding supply of navigable rivers, and the obstacles to a clear comprehension of their position and proximity to one another presented by the absence of any large gulfs and of numerous and well-distributed mountain ranges. In comparing views of scenery, we feel directly that in the simultaneous presentation of a wide extent of country there is something that does one good and seems to enlarge the soul, and that there is a keen pleasure in being able to comprehend in one view a multitude of different but connected objects, enclosed as it were in a firm network of relationships. The notion of being able to reach any place by a given amount of movement in a given direction can never be a substitute for the peculiar impression of clearness which

we receive from actually seeing its position with reference to other places. The dweller in the wilderness has at any rate a boundless horizon spread before him; in the interior of a continent where there are no mountain-tops from which one may survey the country, which is otherwise impenetrable to the view on account of its luxuriant vegetation, permanent obscurity invests even adjoining districts, and fancy here could never look with such a far-seeing and penetrating glance into the comprehensive connectedness of human life, as it has done since ancient times from the favoured shores of the Mediterranean Sea. Many points could be found there upon the mountains, the level coast, and the sea itself, from which one could behold at once numerous countries and islands like a wreath of many-coloured flowers, and could watch the busy traffic which connected them all together. In every case where anything complex falls into well-defined groups distinctly marked off from one another, a clearer and more intelligible picture is presented than where immeasurable continuity offers no fixed points of support to the imagination; in this way it is that the alternation of land and water in the Mediterranean region has much facilitated geographical apprehension, and also at the same time aided a part of our knowledge concerning the relation of man to the universe. But we cannot regard these influences nor the hindrances offered to commerce by great unbroken extents of continent as being in themselves sufficient explanation of the backwardness of the negro races; we ourselves look at these latter circumstances chiefly as hindrances to the eager zeal of discoverers; but they could not present really formidable barriers to a steadily progressive, long-continued struggle of native tribes unless reinforced by other causes.

§ 3. If the other condition which must be added to the favour or disfavour of geographical situation in order to explain a small or great degree of progress be sought in the character of the country which is reflected sometimes usefully, sometimes detrimentally in the mental dispositions of its inhabitants, we get upon still more slippery ground, and the

observations on this point which we fancy we make do certainly contain an extraordinary amount of æsthetic self-deception. We are justified in expecting that extreme coldness and severity of climate will produce dispositions deficient in quickness and activity, and that greater warmth and uniformity will cause a boundless development of all bodily and mental capacities; and when our conclusions go no further than this, they are confirmed by a comparison of different nations and the countries which they inhabit. But when we go beyond this and think that we find men's special peculiarities of imagination, civilisation, and mode of thought to be in direct and perceptible harmony with the countries in which they dwell, we are led astray by the circumstance that a country and its inhabitants are ever presented to us in conjunction as making one picture, having therefore that appearance of intrinsic æsthetic connection which comes to be assumed by any fact which is continuously presented to us. The Dutchman in Holland seems to us to be suited only to his own flat, fertile, lowland home, the North American Indian we imagine to be the only fitting denizen of his forests and steppes; but if we see Mynheer in the Sunda Islands, or the Anglo-Saxon pioneer in the far west of North America, we can hardly say that either the one or the other is in irreconcilable contradiction with his new surroundings, unlike as they are to those of his native place—unless indeed we look with an eye prejudiced by recollection. The same ground which the ancient Greeks once trod is now pressed by the foot of the Turk, and it seems to us that the one race matches the physical background just as naturally and harmoniously as the other. The physical nature of any country is a whole composed of very varied parts, and the nature of its inhabitants is equally complex. The comparison of two pictures both so many-sided and composite is sure to furnish him who is seeking to establish a relationship between them with some evidence in support of his view, if he has a capacity for skilful combination; it will also furnish without much difficulty, to him who seeks them, points enough in which

there exists an inexplicable contrast between the two. The creative power of Nature which produced in India the colossal elephant, produced there also a race of men by no means equally colossal, but on the contrary surprisingly feeble; one might, however, fancy the cunning and incalculable fierceness of its beasts of prey to be repeated in the dispositions of the human inhabitants, as some have thought that they saw reproduced in them the slender grace of various native plants.

Often the only effect that magnificent scenery has upon the minds of the inhabitants, results from the hindrance which features of great natural beauty present to the ordinary occupations of life; the dweller in the Alps owes to the character of his home an unusual development of bodily strength, and also of conscious worth fostered by the necessity of continual self-reliance, but he does not receive from it the freedom and breadth and fulness of spiritual interests which it seems to us would fitly correspond with the boundless horizon stretched out before him. The false notions which people so often have of the connection between a country and the dwellers in it, result from neglecting to investigate the actual means by which Nature really comes to operate in mental life. That any object has a definite form and position, is no sufficient reason for our necessarily perceiving that it has that form and position, or even for perceiving it at all; our doing so depends upon whether its form and position and all its qualities are presented to our eye and our mind through the effects which it has upon us. And it is not enough that the vault of heaven should stretch above us in various degrees of blueness and purity and brightness, that we should be surrounded with bolder mountains and more luxuriant vegetation; in order to understand the educative influence of Nature upon us, we ought to know first what circumstances make a noticeable physical impression upon us; secondly, for how much of the æsthetic worth of these spectacles we have the capacity of reception which is a condition of feeling this worth and of assimilating it for the needs of general development; and lastly, how much of it all is lost upon us because it is obscured

in our consciousness by other influences which are responded to by more pressing natural interests. In so far as mental character depends upon external Nature, it does not depend upon what this Nature is, but upon how it affects the as yet untutored minds of men who are habitually surrounded by it. The effect of external Nature is not to be directly estimated by considering the impression that it makes upon a mind that is already educated, and that comes to it merely as a spectator and not as dwelling with it and in the midst of it.

On the whole, one hears much said of those happier times when there was more intimate communion between man and Nature, and we wish that we could return to that transparently simple existence and leave the clouds of sophistication in which our modern life is wrapped. This longing may be justified if what it desires is social arrangements a little more in accordance with the natural impulses of humanity, and free from the excess of traditional trammels by which we are at present hemmed in; but it is certainly wrong if it expects that a fuller enjoyment of external Nature as contrasted with social life, would produce more exalted happiness and a truer development of humanity. When a man exhausted by the interminable distractions of his daily occupation hastens to open the great book of Nature and to read therein, he scarcely notices that which is the only redeeming touch of truth amid all the pedantry and folly of the fancy picture to which we have referred; the admission that Nature has a permanent charm only for the mind accustomed to dwell on some great connected system of interests, whether scientific or social, or for the soul that having been thus exercised now finds in external phænomena innumerable reminders of the experience of his life, living solutions of his doubts, refutations of his prejudices, confirmations of his hopes, and incitements to further investigation. It is the culture of the heart and the understanding developed by the relations between man and man which first makes us capable of receiving further culture at the hand of Nature; a man who has always lived and who continues to live alone with Nature, would be hardly more

stirred by her influences than the wild animals who live on amidst all this glorious beauty without being softened or ennobled by it.

One may be enthusiastic about the life which a hunter leads who wanders through the American forests and prairies alone with Nature; but the intelligent glance that can take in and enjoy the changing phænomena of his surroundings he owes to his early education and to the (perhaps long unheard) language of his own people, which calls up along with every fresh thought a thousand remembrances of the home and the civilisation which he has left; and the intellectual dower which he has received from these is just as indispensable to him as are the material aids of civilisation. How the young romance over adventurous wanderings, and think that they could plunge with full satisfaction into the lonely enjoyment of Nature! And they do not remark what a large share of their pleasure is due to the sociability of travel, and how little the continuous absence of friendly intercourse with men could be supplied even by the countless occasions of far-reaching trains of thought which Nature furnishes to the instructed mind. The continued view of some striking natural beauty, operates upon the mind, if we are alone, as a gradually increasing pressure, as an impulse which fails to find its object. This tension, half pleasant, half painful, is lessened but not quite removed by the consciousness that others share it with us; for it arises not only from the need for sympathy, but also from our feeling that we really do not know exactly what this beauty of Nature should prompt us to do. For it is in human nature to be prompted to some action by anything which interests it; it cannot remain long in a condition of passive enjoyment without feeling the inner restlessness of unsatisfied activity. But it is into such a position that Nature always forces us at first; all its visional splendour, however clearly it may be spread before us, is yet something of which in itself we can have no intimate comprehension. It is indisputable that the light, and the sunset glory, and the fresh green of spring, and the wonderful outlines of hill and valley,

take our spirit captive with their charm; but all this glorious beauty is voiceless, nor do we know aright what we would have of it; we can never get nearer to any of these phænomena, and though the light should shine for ever, and the woods be ever green, our enjoyment of these living pictures would never be heightened or increased in significance if we did not supplement them by thoughts of our own. What, indeed, are they to us? The answer would be easy if we could embrace the sunset glow, or feed upon the green beauty of the woods; or if it were possible, in any way, to probe somewhat deeper, and with a more active exercise of our own powers, the "open secret" of Nature—open and yet so close—to sound this seeming depth, which on nearer inspection is ever seen to be for us a mere—and yet impenetrable—surface. Since however this cannot be, our interest in a riddle which seems insoluble dies out, we always indeed retain a capacity of being freshly roused by it, but it cannot occupy the mind continuously and alone. Suppose we have reared some plant with the greatest care and pains, when at last the blossoms appear, a sort of helplessness comes over us, as if we did not know what to do next; our interest is momentarily re-awakened when we show it to others; but to look at it for long together, makes us inclined to ask, What is the use of it? We should not wish to see the most charming prospect spread out before us for ever without alteration; there is not enough meaning in it; all these things suffice only to make a pleasing background for life itself; they are graces of existence which we lay aside and return to again. A day of lonely enjoyment of Nature, although enriched by all the intellectual delight that may be derived from solitary reading, secretly seems to us incomplete and half-wasted, unless a word with some fellow-creature crowns the day, reminding us of that community of human life in which we are included. I believe that such emotions occur in every one who observes himself, and they explain the profound sense of discord and the discomfort produced in us by the laboured attempts of a good deal of feeble poetry to entertain us by continual immersion in the mystery and

romance of natural phænomena, whilst our heart is hungering not for mere symbols and analogies but for the full pulse of life itself, and thirsting for reality.

These are feelings which belong to civilised life. He who thinks that life is spoiled by such sentiments, and glorifies the primitive condition of mankind as if Nature had been then less impenetrable to human intelligence, indulges fancies which are extremely improbable. We find that the understanding of Nature among those who still have the advantage of living in closer contact with her, is not greater but less than that of those who come to her fresh from social life; the former are just those to whom that which is useful and the handiwork of men seems decidedly more valuable than the poetry of Nature. And even in the present day we can see by reference to those socially undeveloped peoples who inhabit tracts of land as fertile and beautiful as Paradise, how little immediately educative power there is in the unelaborated influences of Nature. Isolated, and deprived of even the imperfectly organized community with their fellows which these tribes enjoy, men would only feel with still more force that enervating influence which is exercised by natural surroundings, however full of sensuous beauty, as long as they do not arouse either the keenness of scientific search, or that practical faculty of the mind which takes delight in laborious transformations of material objects. But in fact Nature does arouse both, when she creates wants and at the same time affords the means of gratifying them. It has been long maintained, and with truth, that higher development is hindered not only by the extreme disfavour of Nature but also by that excess of bounty which enables men to supply the needs of life without exertion on their part. Human culture began when men began to regard the earth as a fruitful field of labour; but the beauty and ideal meaning of natural scenery has of itself produced no culture; it has in fact only become intelligible in proportion as the school of work has trained human thought to form plans and to appreciate the worth of *success*, that is, the worth of the harmony established among

disconnected beginnings by their joint contribution to one final result. Man learns to know and to estimate the great value of truth and of faithful law-abiding constancy on which one can depend, when he finds that the soil with unfailing regularity causes the seed entrusted to it to spring up and ripen, or when a successful result crowns some simple attempt in which, relying upon the teaching of his own experience, he seeks to make an artificial arrangement of natural powers serviceable to his own ends. By this time there has crept into his consciousness by imperceptible degrees the conviction of a connection between things which in a general way guarantees some conclusion to every beginning, some result to every experiment, to every like cause a like effect, to all events the possibility of ordered harmony, to every individual thing in the world a certainty of not being isolated or in vain, but of ever finding some way open by which its longing and its activity may be added to the sum of the universe, and in the end make its worth felt. Under whatever forms early mythologic fancy may have pictured the life of Nature, it was in truth a perception of the ordered mechanism of the external world which educated mankind, and it was the steady immutability of this mechanism which first impressed man's sense. He only learnt to understand the frank beauty of Nature in proportion as he became able on the one hand to rejoice in the pervading order of the universe, and on the other hand to feel the bitterness of temporary discord between it and his own individual wishes—becoming able, with the help of such experience, to find the meaning of natural phœnomena.

§ 4. Our sceptical observations have up to this point been directed partly against the opinion that the peculiarities of the planet to which we belong reappear in the general features of the human mind, or that particular peoples present a kind of spiritualized reflection of the character of their native land; they are also partly directed against the belief that these mysterious influences of cosmic life further the development of humanity. In making these observations we are renewing a warfare, begun long ago, against the inclination to see in

every individual department of reality merely an imitative echo or a prophetic indication of some other department, and in the whole great circle of phænomena nothing more than a continuous shadowing forth of the higher by the lower, and of the lower by the higher. The life of the soul does not appear to us as an image of the life of the body, does not seem to us to be bound to develop some inner activity as a counterpart of every individual function of the body; on the contrary, we hold that all which is material is but a system of means which the mind uses for other than material ends, and with the useful results of which it is concerned, without asking by what system of activities the body has secured this net produce of available stimulation. Again, man is not a mere copy of external Nature, but is a living product, unique in kind—receiving, indeed, innumerable impressions from Nature, yet not in order that he may reflect them back in the form in which they were received, but that he may, in accordance with his nature, be roused by them to reactions and developments, the explanatory cause of which lies in himself, and not in what is external. We are not here denying out and out any determination of man by Nature; we even admit that kind of dependence in accordance with which fluctuations of natural circumstances tinge our inner life with changing hues. We may and do admit that our organic feelings depend upon the weather, our moods upon light and air, the tone of our thought upon season and climate. But on the one hand, it is mere superstition to lay extravagant emphasis upon conditions so difficult to calculate, whilst clear and imperative motives of our reciprocal action are seen much more obviously in human passions and circumstances; on the other hand, that which is thus subject to the influences of Nature is only our moods, those vague states of mind which may indeed hinder or further an impulse to development which has originated elsewhere, but which could never of themselves have guided human progress in any definite direction.

When, however, from these considerations we turn to the question, By what definite ideas of action could Nature favour

the moral development of mankind? the beginning of all human culture seems still more wonderful. For it is clear how fruitless must be any attempt to borrow from soulless reality rules which have an unconstrained and natural relation to our action with its totally different motives and aims. To a mind already alive to the worth of law and order, the fact of their universal prevalence is a point—and the only point—in Nature which it can recognise as presenting some similarity to the constitution of its own conscience, and as affording a clear lesson for its own guidance; but to attempt to model the duties of creatures that have mind and the arrangements of their social intercourse after the particular forms in which the phænomena of the external world depend on one another, is one of the most grievous and barren blunders of that sentimental symbolism which we are opposing. What suits stars and flowers need not on that account suit us; the most we could expect would be that the sure instincts which guide those creatures nearest to us in the scale of creation might perhaps furnish a true and unsophisticated indication of what Nature requires of man, and whereto she has destined him. We know the ideals with which this department of life can furnish us. Beside the strength and grace of one animal we see the sloth and stupidity of another, beside isolated moments of self-sacrificing love and fidelity the treachery of the most blind and inconsiderate selfishness, and in some creatures dainty grace and timid beauty, combined with a cruelty that delights in tormenting prey; and the whole of this motley picture in a perpetual ferment, one part cancelling another. What sort of conviction of an intelligible connection of the world, and what sort of a consciousness of our own duties could result from such observations as the foregoing? It is unquestionable that he who takes the nature of brutes as his pattern will attain a development, not of humanity but of bestiality. He however who begins to distinguish between the indications of universal validity which Nature affords us even in the life of brutes and the impulses prompted by blind instinct, though he refuses to recognise a higher law of conscience, has already

reached a stage of criticism at which any worth of natural impulses considered as furnishing a standard of right must disappear altogether. For he will not be able to deny that in his own nature also, many of these condemned impulses occur, and that too with all the force of importunate attraction, and he will then perceive that physical Nature cannot teach right or duty until its indications have been approved by the higher law which is in man himself, and until they have become part of the intelligible connection of a supersensuous rule of life.

# CHAPTER II.

## THE NATURE OF MAN.

Temperaments—The Meaning of Temperament—Differences of Temperament—The Successive Stages of Human Life—Connection between the Vital Feelings which have a Corporeal and those which have a Mental Origin—Differences between the Sexes—General Mental Peculiarities of Women—Heredity, and Original Difference of Endowment.

§ 1. IF from external Nature, the influence of which we could neither deny, nor admit without qualification, we turn back to ourselves, we find that the original peculiarity of our own nature sets numerous limits to the development of our individuality. In temperament, in innate capacities, in those changes of the whole background of our mental life which are inevitably caused by changes of age, in difference of sex, in the varieties of susceptibility and impulse which mark different nationalities, are to be found rules and limits from which our development cannot escape. And from which, indeed, in many respects it ought not to escape. The ideal of humanity may find in these natural endowments more or less hindrance to its realization; but it is not of the essence of this ideal to require a uniformity from which every tinge of individuality has been expunged. It is only among brutes that such conformity to the type is regarded as a perfection; among men it is more in accordance with the ideal that the special nature of each individual should impart to his conduct (of which the general outlines are the same for all men) its characteristic tone and colour.

We are little acquainted with the circumstances upon which these varieties of human endowment depend. They may be for the most part conditioned by bodily constitution, or they may result from the gradual summation of innumerable similar

impressions; whether it be that these continued influences have become as it were to a certain extent fixed as tendencies to development in the bodily constitution, or whether it be that the mental development of our ancestors has been transmitted, as innate capacity, to their descendants, after a spiritual fashion which is still less comprehensible to us. However this may be, the differences exist, and we cannot altogether neglect a consideration of their consequences, though we may leave the question of their origin undecided.

Varieties of *Temperament*, as of all other innate natural capacities, appear to us to be most marked under conditions of advanced civilisation. This may result from our imperfect knowledge of the more simple forms of life, the distant view making their uniformity seem greater than it is, or it may be that only high culture affords scope for any great development of the characteristic talents and dispositions of individuals. Clear as these differences themselves may be in many cases, the signification of the name—*temperament*—by which they are distinguished, continues vague. The original meaning of the word seems to indicate that we should understand temperament to signify general characteristics of the course of mental life which do not of themselves exclusively predetermine either a fixed degree or a fixed direction of culture, but which certainly promote or hinder in various ways the development of intelligence and of moral character. These we cannot pronounce to be either altogether unconnected with, or indissolubly attached to, special varieties of bodily constitution and predispositions to particular forms of disease. Under the head of temperaments comes a consideration of the throng of ideas which pass through consciousness together, the swiftness with which one succeeds another, and the force with which thought works, either in one direction specially, or several simultaneously, calling up a more or less numerous and harmonious association from the ranks of previous impressions; of the fidelity with which previous perceptions are retained, or the rapidity with which they melt into vague general images; of the constancy with which an idea once

taken up with interest is held fast in the midst of numerous changes, or the ease with which sympathy and attention are diverted from their original object to a host of importunate accessories; of the general degree of feeling roused by impressions, and the permanence or transiency of this feeling; of the concentration of effort at certain points of enduring interest, or the inclination to jump from one occupation to another, and of the various strength of the impulse to express one's feelings in movements, words, and gesture. Differences of temperament are just like those differences in the movement of a current which are due to the original nature of its source and channel; according to the original density of the fluid, according to the direction of its fall and the nature of its bed, the various obstacles with which it meets cause it to be disturbed in some cases by deep, slow movements, in others by waves which merely fret its surface.

§ 2. If out of the innumerable varieties of individual temperament which we must recognise in experience, we would emphasize some striking forms in which the distinctive features we have noticed are grouped with most coherence, we shall naturally recur to the quaternion (*Vierzahl*) to which antiquity, combining groundless theory with sound observation, gave names which are still retained. But nothing would be gained by painting here over again these oft-presented pictures; we shall be better occupied in considering how, in the individual and in society, temperaments akin to these do to some extent naturally occur, and how to some extent they should occur in a regular course of development.

The health of the body depends a good deal upon its different parts not being so intimately connected as to cause every shock received by one to be communicated to the others. It is a sign of morbid weakness of nerve when the wholesome resistance to diffusion which prevents the spread of excitation is so far diminished, that every slight irritation affects the whole frame, and when disturbances of organic feeling which are by no means immoderate immediately call forth a variety of secondary sensations, produce convulsive movements,

and accelerate secretions, or change their character. On the other hand, one might ask whether this general sensitiveness to stimulation is not the right state for a mind to be in prior to experience. Minds are not of course destined to remain permanently in such a state, but the task of educating oneself, and of gradually establishing one's own character, can only be satisfactorily carried out when it is unhindered by any original rigidity or sluggishness of constitution. Permanent excess of this general capacity of reciprocal excitement among all psychical states and general sensitiveness of the soul to all outward stimuli, distinguish that temperament which with a tinge of disapprobation we designate the *sanguine*. We think that to be easily disturbed and so pass easily from one mood to another, is natural and fitting in childhood, an age of which the proper business is to collect impressions by which it may build up its mental life without prejudice or special preference, and in fact it is generally where this volatility exists without lasting too long that a child develops most rapidly. The liveliness of the sanguine temperament seems to us to be also natural among uncivilised tribes, the differences of whose interests in life are generally too slight and shallow to call forth such a one-sided pursuit of definite ends as to weaken men's original receptivity for impressions of all kinds. Only it must be remembered that favourable conditions of external Nature are necessary for the simultaneous development of quickness of mind and joyous activity of body.

But while this temper of mind is advantageous at the outset of development, it presents many hindrances to the later development of intelligence, as well as of the emotional and moral nature. Great rapidity in the succession of ideas, which is made possible by the short-lived interest awaked by each one, is to a certain extent necessary for a child. This rapidity produces knowledge of a multitude of individual facts, and moreover, by means of the many-sidedness of ideas which supplement and correct one another, it prevents the establishment of narrow notions and attachment to ideas accidentally got and not of universal validity — faults which men are only

too apt to fall into in later life in consequence of the monotony of their particular occupations. But on the other hand, this rapidity of change hinders the fixation of that which has been acquired, and a sharp demarcation of the regions within which easily attained generalities are valid but beyond which they cease to be applicable. It is further necessary for a child that feeling should be easily roused by slight impressions and unimportant perceptions, and also that the fluctuations of such feeling should be as rapid as the fluctuations of its various occasions. It would be ill if in children laughter did not follow in the wake of tears, and if instead of their happy forgetfulness of sorrow, and even to a certain extent, of salutary punishment, a tenacious memory for all evil, for injustice, affronts, and pain, were to occasion moods of considerable duration during which their ready receptivity would be disturbed. This characteristic again, which is an advantage in the beginning, becomes a disadvantage later on. The quickness with which feeling that is continually on the *qui vive* responds to every momentary impression, together with the small amount of effort which the excitation is capable of calling forth, leads to the instability which must mark a course of conduct prompted by motives not derived from comprehensive reflection, or from the combined tendencies of a formed character, but borrowed hastily and fragmentarily from isolated and transient occasions. Every human life starting with infinite possibilities of varied development, has the task of limiting itself to the finitude of some definite characteristic form which leaves a thousand early hopes unfulfilled, but by way of compensation evolves from the few impulses which it really develops a thousand wonderful and characteristic results, the rich variety of which could never have been suspected in the beginning. The man whose sanguineness of temperament has outlived its natural term, gives us, not inappropriately, the impression of being a grown-up child, and the social charm which we readily grant to his general responsiveness and easy adaptation to all circumstances, does not make up for the want of trustworthiness, and does not rouse that interest which we

take in every individuality that has actually worked out its natural potentialities to some definite reality.

To correct such faults without sacrificing what is attractive in such a temperament should be the aim of subsequent development. The mind ought to retain all its receptivity, for both great and small, and for the most various kinds of stimulation; but it should at the same time learn to discriminate between that which is of great and that which is of little worth, and to regulate the amount of responsive reaction according to the significance that each impression has for the interests of human life, which gradually stand out more and more clearly as forming a coherent whole. The natural course of development begins the accomplishment of this task, the *sentimental* temperament of youth displacing the sanguine temperament of childhood. I choose this name in order to avoid an inexactness which is involved in the ordinary designation of the *melancholic* temperament, an expression which makes us think of sadness and dejection of mind, and though this unhappy humour may cast its gloom over the whole of a man's mental life, in consequence of bodily disease or of long-continued misfortune and the memories which succeed it, yet it is not itself one of those general types of inner life to which the name of temperament can be properly applied. Indeed, the fact is that this humour, like every other, is compatible with any temperament, although one may be more conducive to it than another; while what we mean by the sentimental temperament is not one humour which out of the many that we may experience has become predominant, but a general propensity to give oneself up to humours, to as it were lay oneself out for them, and to entertain them in greater force and to a greater extent than occasion warrants. Children do not pick and choose among impressions those that they will attend to; their curiosity is easily excited by facts of any kind which can furnish them with ideas. If we sometimes find them disinclined to learn, we should remember how very uninteresting to them those objects must be in which we are only interested because of our knowledge of their signifi-

cance. If we consider this, we shall admit that there is in the child a disinterested readiness to appropriate the most various material, and that the results of this during the early years of life far exceed what is acquired in any equal space of time in after life. It is natural that this undiscriminating receptivity should diminish, the more the task of thoroughly organizing the acquired material of knowledge comes into prominence. The youth therefore is more discriminating than the child in his reception of impressions; much seems to him indifferent or repulsive which the mental digestion of the child readily assimilated. But in proportion as there have not yet arisen definite objects in life in connection with which all particular experience may be steadily systematized, the interest of the soul will become centred in the emotional worth of impressions; it will withdraw from all which does not promise satisfaction to its inclination for this kind of excitement, or conversely will use every imaginable impression merely as the peg on which to hang a succession of feelings, treating its intellectual content with unsympathetic neglect. Thus is formed the sentimental temperament which naturally gives the tone to mental life during the period of youth; and if it does not outlast its due time much that is valuable and noble in our development is due to it. Being specially capable of appreciating the harmony or discord which belongs to the formal relations of impressions, it is given to the dreamy repetition of all that is rhythmical and in general of all æsthetic impressions; little inclined for real hard work, but driven by restlessness of feeling to imaginative activity, it seeks an outlet partly in artistic creation and partly in framing ideals of a better state of things than that which actually obtains. But while susceptible to the emotional worth of perceptions, it is at the same time disposed to theoretical vagueness, in consequence of not having a sufficiently firm grasp of the definite points between which those relations extend which are themselves of so much consequence. Thus it becomes unpractical, wishing indeed to reproduce by its own activity the moods which it values, but

having no sympathy for the uninteresting details of appropriate means; and just as often it is unjust, resenting the indifference or opposition of others to its own æsthetic prejudices with a bitterness which excludes all fair judgment and all toleration of divergent culture.

It is a happy peculiarity of our nature that past suffering does not live as vividly in our memory as past joy; but any pain at the moment when it affects us, stirs the spirit more powerfully, and produces a greater mental turmoil of thoughts seeking for utterance. Sometimes a man does not for the moment know what to make of pleasure, and often he has to wait until time shall have revealed all the individual happy consequences which some present good fortune involves, finding only then a fitting expression for his joy. This explains how it is that men are disposed to seek dissonances, or to exaggerate them when they exist, in order that by doing so they may as it were gain mediately a clearer consciousness of the harmonies which are actual or possible, and the worth of which stands out the more clearly in the contrasted presence of impending danger. Therefore sensitive souls love the gentle melancholy which is spread like a grey background behind the rainbow glory of isolated moments of delight, and the old view was not altogether wrong in giving to the sentimental temperament the designation of *melancholy*, with which humour that temperament is in fact thus naturally connected.

The great defect which attaches to this temper of mind is the ease with which the development or establishment of a sense of duty may be hindered by excitability of feeling. However indispensable this temperament may be not only for artistic genius but also for the truly humane ordering of practical life, yet if it continues in isolated predominance it leads both in art and practice to mere skill, which amuses itself but acknowledges no obligation to serious work. We need not refer to that repulsive form of sentimentality which turns all the circumstances of life to account in no other way than as occasions of emotional excitement; we may also trace the ill

effects of the sentimental temper both in science and in art. It is shown in the latter by its way of dealing with the isolated lyric movements of emotion which naturally arise in men and have received a pleasing formal expression either from some gifted individual or from the cultivated general mind; these it is incapable of grasping and bringing together into a coherent whole in such a way as to attain to higher truth. It is shown in the scientific region by the numerous examples of men who, with great natural gifts, can be content to spend their ingenuity in constantly devising some new dress for the knowledge they have already acquired, in giving it a finer point and more exquisite arrangement, without ever honestly doing their part towards the final solution of any problem. A good deal also of apparently earnest effort has to be set down to this less emotional form of sentimentality; but what is great in life and in science has always been the result of concentrated energy, which, without denying the worth of other impressions, yet passes them by on the other side, as it presses towards its own goal, busying itself all the more eagerly about the means of attaining to it, though these being indifferent in themselves, are despised by the excited temper of youth in its search after worthy ends.

The *choleric* temperament is plainly that which we must desire to see developed in the time of manhood, as the natural successor of the sentimental temperament; its too early appearance would be as contrary to the perfection of human development as its not appearing at all. The diminished susceptibility to excitement which is ascribed to this temperament, together with the great force and endurance of its reaction, when feeling has once been aroused, are doubtless often the effect of a moral steadiness of character, which having chosen definite ends refuses to be lured from its path by irrelevant attractions; or it may be that they are the effect of a narrow range of ideas produced by the monotony of life, and in many cases blunting the interest which would naturally be felt. But that obstinate perseverance in a path once entered upon, which hindrances only serve to spur on to

greater activity, often occurs even in children; we are therefore fully warranted in designating this state of mind as a particular temperament. Its essential features are to be found in its unreceptiveness for incidental attractions which lie out of the beaten track of its thought; in the narrow scope afforded to new impressions, these sufficing only to call up the recollections most closely associated with them in one particular groove; and lastly in the small degree of feeling which can be aroused by any perceptions but those which fall in with the prevailing current of feeling. But when interest is once awakened, it affects with equal steadiness the train of ideas and the efforts of the will; thus this is the pre-eminently practical temperament, both on account of the definiteness of the ends which imagination presents to it, and also because its less exacting and less touchy temper does not shrink from the employment of indifferent or irksome means which, while destitute of intrinsic worth, are indispensable for the attainment of the desired end. But the frequent confusion of this temperament with what we call simple wilfulness shows that it has drawbacks which are closely related to its advantages. In fact its practical efficacy is often impaired by a gradually increasing narrowness of mental life, which having chosen some one exclusive end, not infrequently fixes with equal exclusiveness and obstinacy upon some one definite kind of means, and even sometimes, reflecting itself as it were, seems as a final stage, to reject all reference to intrinsically worthy ends, and develops into that conscious stubbornness which is the caricature of rigid consistency. It is not in such results that the progress of development which we desire is to be found. Later life ought to inherit a fair share of that passion for everything which has emotional worth which is characteristic of the sentimental temperament, as well as of the mobility and sensitiveness of the sanguine temperament, and the group of characteristics which best becomes the ideal of human excellence is not to be found in the unsympathizing or contemptuous disposition which a narrow-hearted devotion to definite ends exhibits towards

all which lies out of the track of its own particular effort.

I shall perhaps be regarded as the advocate of a strange thesis when I say that I regard the *phlegmatic* temperament as the natural temper of advanced age, and at the same time as an improvement on the choleric temperament with its prejudices and narrowness. A description of the different temperaments so naturally presents each one as an exaggeration of its special characteristics, that at the very name of *phlegmatic* we are accustomed to think of a sort of mental lethargy very far from suggestive of advance in human development—a state in which susceptibility to impressions, as well as any pleasure in responding to them, has been almost wholly lost. But in this representation vacuity of mind is confounded with a form of activity which may belong to a full as well as to an empty mind. A state of steady equanimity would be intolerable and repulsive in a soul whose capacities were as yet only partially unfolded, and whose best development yet remained to be won among the manifold changes and chances of life; but such calm is to be reverenced in a mind which has passed victorious through chance and change, and has learnt by wide experience, neither to be carried from one mood to another by every changing impression, nor to give exclusive and one-sided approval to some one particular form and direction of human effort. It is true, indeed, that as long as we understand by temperament only a natural disposition as contrasted with any acquired attitude of mind, the immovability of the *phlegmatic* temperament must seem to us the least pleasing of any human character. And yet even in this we are often unjust; we conclude too hastily that disinclination to bodily movement indicates an equal sluggishness of thought, that the absence of foolish outbursts of emotion and omission of useless expressions of feelings are due to coldness of heart. Hence we are often surprised to see such minds stirred up by a great and impressive stimulus to some energetic passion, producing vigorous and long-sustained efforts; such an occurrence we

have often enough seen "writ large" in the history of races whose national temperament is decidedly phlegmatic. We learn from such cases that it is unjust to attribute the immovability and incapacity of mere stupidity to that solidness of mental life which is hardly affected by individual passing impressions, but slowly stores them up until the time arrives for some supreme effort—or at any rate if no occasion for action arises is not haunted by a mental unrest which prompts the search for such an opportunity. Like all rest, this equanimity of soul is a phænomenon that may have many significations, and its worth is in proportion to the amount of dormant power which it holds in suspense. We blame the unreceptiveness which remains unmoved because it is wanting in all intelligence and sympathy; but we all seek that peace which is not immoderately excited by anything, because nothing is any longer wholly new to it; which has experienced every kind of emotion, but has long ago learned to assign to every passionate impulse its proper value in the whole intricate chain of human interests, appealing to this from any accidental strength of feeling which may be due to the circumstances of the moment; which finally has ceased to have any part in the heat and hurry of self-willed effort, because it has learnt that the vicissitudes of destiny are too great, and the field of human activity too circumscribed to admit of our attributing absolute and unconditioned worth to any single work or any single performance of ours. We hope for this frame of mind as the natural temperament of old age, but we certainly do not see that it is generally attained; on the other hand, however, we find that by innate favour of spiritual organization, some few happy souls have all through life this fine balance of mental temper. They receive with pure-hearted and ever fresh interest, impressions of all degrees of importance; they are not indifferent to any class of feelings, but on the other hand, none carries them away into the tangled paths of a one-sided and narrow humour; with clear vision and patient hand, they quietly compass the means to some steadfastly pursued end, without the unsympathizing

harshness which refuses to endure any interruption of its work, and without that contempt for other paths which is natural to him who knows none but his own. It is not of the great names of history that we are thinking now, but of those gentle and blessed natures who pass noiselessly through life, seeming as it were the very embodiment of our ideal; those who have had a strongly marked effect upon the course of history, have much oftener been men whose minds were not thus finely balanced, and who owed their influence to the one-sided harshness with which they have succeeded in forcing their own views upon the world, undisturbed by any acute sense of the comparative worth of conflicting opinions.

Observation does not show us that more than a distant approach to this gradation of human development actually exists. In order to go through it completely, and to let each of the temperaments run its whole course in full and unmixed current, unusually favourable conditions both of natural disposition and of outward circumstances would be required. It is only when culture has advanced rather far that it can furnish the different periods of life with that variety of interests from which each particular phase of character can draw material for vigorous development; hence the monotony of a very simple mode of life would weaken the characteristic differences of temperament. But on the other hand, the multifarious complications of life may hinder regular development by events which press with such a weight upon the soul that completeness and spontaneity of further development becomes impossible. And finally, the more thoroughgoing has been the development of mind and character in any generation by a life of varied culture, the more are the natures of the next generation likely to diverge from one another, exhibiting characters of striking individuality, the course of development of which often differs strangely from that of the ordinary type. Then there are numerous diseases which have a powerful effect on temperament and humour, and numerous bodily disorders which, before they declare themselves as disease, appear in disturbances of organic feeling which,

inexplicable even to him who suffers them, imperceptibly give a tone to the totality of his views and feelings. It would be extremely interesting if it were possible, to investigate the causes of these phænomena. But it is indeed impossible to discriminate in them between what has its origin in the region of mind, in the impenetrable windings of every individual development, and to some extent reacts upon the bodily organization, and what on the other hand is due to organic development and its disturbances, and has a share in influencing the growth of the inner life. Perhaps too much weight is sometimes attributed to the last factor, but still there is no doubt that it does have a very important effect. We see tardiness or precocity of bodily development accompanied by a like tardiness or precocity of the mental dispositions corresponding to these stages of physical growth; and on the whole nothing is more natural than the assumption that the full tide of organic feeling receives at different times a different colouring in proportion as this or that organ or department of the bodily economy makes its influence more or less felt by innumerable constant excitations, singly imperceptible, which vary according to the rapidity or backwardness with which the organ or department in question develops its activity. But while the time is gone by for explaining such matters by reference to the black bile and the yellow bile, the time is not yet come when we may have recourse to exact observation for an explanation of the importance of different functions at different times, and for trustworthy information as to their influence on mental life.

How intimately permanent bodily conditions may be connected with permanent mental dispositions, is shown by observation of cases in which their reciprocal influence is temporary. It has been said, and not without truth, that we think differently when we are lying down and when we are standing up; a constrained and cramped position of the body has a depressing effect upon the spirits; again, we find it difficult to be devotional in a comfortable and careless attitude; rage is quieted by muscular repose—it is a dictate of prudence

to get a furious man to sit down in an easy-chair; and the hand which smooths the wrinkles from one's brow, smooths away trouble too. It may be asked whether æsthetic and moral judgments or our thoughts about future joy and sorrow do not primarily receive their vividness and intensity from accompanying sensations in which that which is of intrinsic worth appears to us as harmonizing with the innermost conditions of our own individual existence. There are plenty of apathetic states in which these attendant feelings are wanting —in which we may see as plainly as before the objective excellence of one kind of conduct, and the blameworthiness of another, and recognise the just claims of others on our love and sympathy without being in the slightest degree capable of conjuring up that glow of feeling which we know would be appropriate to the occasion. How often does the same thing happen in our enjoyment of beauty! Appreciation of it is not mere abstract delight in harmonious relations; delight in general is not a merely mental process, but something by which our whole being seems to be exalted and carried away, something which makes us breathe more fully and freely, which quickens our pulse and gives elasticity to our muscles; remorse for what is past is not the mere moral sentence of condemnation which, pronounced by conscience, is simply apprehended by the soul; the relaxedness of the limbs, the oppression of the heart, perhaps in anger an actual spasmodic contraction of the throat and rising of the gorge which prevent our swallowing the morsel already in our mouth—these show the sympathy of the bodily organization, and as it were symbolize the attempt to get rid of some detested burden under the pressure of which we suffer. Even devotional feeling is not a purely mental exaltation; but whilst it makes us unconsciously forego the careless haste of our ordinary gait, and causes our movements to be slower and more self-restrained, and our attitude to take a peculiar stamp, not of relaxedness, but of strength which voluntarily submits, there flows back into consciousness from all these bodily effects an echo of feeling strengthening the intellectual mood. We can

understand what a difference it must make if the body return this echo imperfectly or with a tone altered by disease, and how in fact similar moods of some special individuals can never be quite comparable one with another. It is in the bloom of youth that we find this correspondence between mental life and its material vesture developed in the most attractive and perfect form; in later life the gradual increase of obstacles and of friction causes the imperfections and incoherences in the connection between the two orders of affection to become more and more prominent. We can no longer read the whole soul in movement, gait, and carriage; ordinary daily actions are got through with unsympathetic dispatch, eating and drinking often with ugly and soulless eagerness; and it is always a sign of profound culture of the heart when the thoughts of a man advanced in years do not meet the sensuous warmth of any passing event with the uninterested and unsympathetic coldness of age.

§ 3. We feel afresh the want of trustworthy knowledge concerning the psychical importance of the bodily organs and their connections, now that we are come to that difficult part of our task, a consideration of the mental differences of the two sexes. I will not stay to compare the undulating outlines of the woman with the more angular build of the man; it may be that there is foundation for the idea that the latter indicates the preponderance of some impulse towards characteristic individualization, and that the perhaps really greater bodily likeness among women is to be regarded as evidence of their greater mental conformity to some general type. Even here where the outward form is to others indicative of the inner life, I find myself able to lay little stress upon the merely symbolical significance of the bodily form; it would be much more interesting to show, if one could, what particular organic feeling the body comes to have in consequence of its functions and of the particular proportions of its parts.

Of all this we know but little. The relations of the different parts of the skeleton and of the muscular system show that

there is less power of work in the frame of the woman, the shoulders and chest are not adapted for lifting, carrying, and moving heavy weights and obstacles, nor are the hips and legs framed for swift running, or for walking firmly under a heavy burden; the muscles seem less fitted to endure continuous strain, great as may be their capacity of work when they have frequent alternations of activity and rest. These circumstances can hardly fail to influence organic feeling, a very important part of which always depends on a consciousness of the ease, elasticity, and peculiar security of our position, attitude, and mode of progression. The fact that a man's body forms an oval with its greatest diameter through the shoulders, and a woman's body an oval which is widest across the hips, is in itself indifferent; but it may be that on the man the preponderant weight of the upper part of his body may have the effect of a burden which demands to be carried forward swift and sure in opposition to all obstacles, while the woman, feeling more fettered, most naturally finds her sphere of work nearer home, and expects it to come to her thither from the dim distance.

This inferiority in strength is compensated by a greater capacity of adaptation to the most various circumstances. The bodily wants of women are much less than those of men; they eat and drink less, they breathe less air, and are said to be less easily suffocated; with regard to hardships—at least those which are continuous and of gradual growth—and privations, they bear them to some extent more easily than men, and in some respects with less of ill effect than might have been expected from their degree of bodily strength. They endure great loss of blood and continuous pain better; and even the greater irritability of their nervous system, on account of which many unimportant disturbances have a great effect, seems to favour the rapid and harmless dispersion of any shock that may be experienced. Hence even under unfavourable circumstances, they often reach a great age, although the examples of extreme old age, lasting on far into a second century, are to be found almost exclusively among men.

They are naturally disinclined to very vehement sensuous gratifications, and often have only a sort of emotional aversion for disagreeable impressions in cases where a man would be almost overcome by absolute physical disgust; the work of restoring cleanliness is always in itself uncleanly. The same capacity of accommodation is shown in the various circumstances of life. It is an old and true remark that women can much more easily suit themselves to new conditions of life, to a different rank in society and changes of fortunes, whilst it is hardly possible for a man to efface the signs of his early training. Acquired habits also have a stronger hold on him, and when accustomed order is interrupted or the usual hour for work or food comes round empty-handed, his general comfort is much more greatly disturbed. With the above characteristics of women there is naturally combined a mixture of that liveliness proper to the sanguine temperament and that warmth of heart, belonging to the sentimental stage, the absence of which we regret in any woman, counting it an imperfection. In her, varieties of education hide much; but even in the most extreme cases we shall hardly fail of finding a propensity (akin to inquisitiveness) to talk for the sake of talking, and some trace of pleasure in beautiful and harmonious arrangements.

But the question, How is the higher mental life of both sexes characteristically distinguished, with reference either to these natural features or to any others? is one which it seems hardly possible to answer. The innumerable observations, partly ingenious and partly also at the same time true, to which this question has given rise, have seldom been concerned to distinguish between what is to be regarded as original disposition, and what as a remote result of the circumstances of life and educational routine which have affected the two sexes very differently, although in harmony with their natural dispositions. However often the attempt may be made to reduce to simple intelligible expression the multitude of these particular characteristics, which only a life's experience can teach, and only the plastic creations of

poetry can reproduce, it will always be found that such attempts must be content to give merely an extremely colourless outline of that which in its boundless wealth of colouring furnishes the philosopher of common life with an inexhaustible field of interest.

I do not believe that the intellectual capacity of the sexes differs, except in so far as the special emotional interests of each have prescribed the course of their intellectual life. There is perhaps no subject which a woman's mind could not understand, but there are very many things in which women could never learn to be interested. Though it is often said that in knowledge a man is attracted by the universal, a woman by the particular, yet in very many cases we should find, that it is just the individualizing power of women which is inferior, and their delicate instinct for the universal which is superior; and besides, this division of the work of knowledge to which we have just referred is inconsistent with the current attribution of egoistic effort to the masculine will, and of subordination to universal rules to womanly self-suppression. There would perhaps be more truth in the opinion that the knowledge and will of men aim at *generality*, those of women at *completeness*. It is masculine philosophy to analyse striking phænomena and to find out from what complication of general conditions each of them inevitably and necessarily resulted, however much it may seem to be some arbitrary and chosen product of Nature; it is characteristic of women to hate analysis and to enjoy and admire the beauty and intrinsic worth of any whole that may be presented to them in finished completeness. All mechanical inventions have been made by men, and to men belongs delight in the mediate production of effects by the application of general forces according to general laws; while the actual manipulation belongs rather to women, and to them also the desire to find that the warmth of living feeling is being as it were transferred immediately to the product of their activity. Characteristic of masculine thought is the deep conviction that all which is greatest and most beautiful in the world has its mechanical conditions, and

that no result which is premature and which evades this fixed order of realization can be permanent and stable; it is to this thought that is due the order by which life is organized, an order that is everywhere dependent on the principle of law, that is on the belief that the universally valid conditions of truth must be satisfied before there can be any question of a result that may be desirable in some particular case. On the other hand, the faith of women—which is both just in itself and as necessary as the other to the happiness of life—is that no general principle and no form can ever have an independent and unconditioned value, but that such value belongs exclusively to the living reality which may be founded on them; from this faith flow all the beauty and compensations of life, for it is a faith which is everywhere dependent on that principle of equity, which makes men feel bound to soften the harshness of law by unowed love and kindness; the misfortune is that this desire to show kindness is often in danger of hastily and unjustly breaking through forms of law which hinder the fulfilment of its intention.

All masculine effort depends upon profound reverence for general principles; a man's pride even and ambition are not satisfied by groundless homage, but he founds his claim upon the sum of generally recognisable superiority which he believes himself to possess; he feels that he is undoubtedly something more than a mere example of the universal, and he demands to be compared with others by means of some common standard. Just as devout is the sentiment of the feminine mind towards completeness; a woman no more desires to be considered as an example among others than the beauty of one flower requires to be compared with that of others according to some standard of comparison; and while a man cheerfully joins himself to others who are like-minded and cheerfully perishes with them for the sake of some general principle, a woman would rather be sought and loved as something fair and complete in herself, and for the sake of her own individuality, which is a thing that is not susceptible of

comparison, nor explicable by reference to other individuals. For certainly in the feeling with which we regard such a whole, love in the strict sense is more prominent than esteem, but it is pre-eminently esteem and not love which a man requires in the feeling with which he is regarded; he is not merely willing that his worth should be measured by a common standard, but he demands that it should be so measured. No one, of course, will so misunderstand this contrast as to imagine that we mean that a woman's nature has, like the unanalysable fragrance of a flower, no pretensions to call forth the sentiment of esteem, which is in fact aroused in a very high degree by particular virtues which appear in women, and which are susceptible of comparison.

We only need to look about us as we go through life in order to find a thousand traits which bear witness to this general dissimilarity. The business communications of men are brief, those of women are wordy, and generally abound in repetition; it is plain that they have little faith in the trustworthiness of a promise which is guaranteed merely by the general obligation to truth and good faith, and is not clenched by a variety of small considerations drawn from a comprehensive survey of the case in hand. Men lay less stress upon the harmonious arrangement of their spatial surroundings, except in as far as these secure the immediate and ready applicability of means to desired ends; but they value punctuality as regards time, which is in a much higher degree a mechanical condition of all success; women have the happy knack of arranging a multitude of objects in space in such a way as to produce a pleasant effect on the whole without any rigid adherence to system; but they show less management with regard to time, which is something that cannot be seen. When men and women speak of regard to form they generally mean very different things; the womanly nature is concerned to round off into a graceful and consistent whole the final product of any activity; her skill lies in knowing what is appropriate to the case in hand, which very often is exactly that which the man's judgment disapproves; for the forms which he would

choose to have observed are general rules of orderly procedure, which must be carried out even at the cost of producing some isolated discords. With the above is closely connected the well-known unjudicial character of women. It does not consist in an incapacity to sacrifice individual claims, for nothing could exceed the cheerfulness with which women make such sacrifices, as soon as they have actually set before them that good of others for the sake of which the sacrifice is to be made. But they feel aggrieved because very often the law in considering any given case does not regard it as a whole, but brings it under some general definition in virtue of some special characteristics, the selection of which seems to the woman's mind to be arbitrary; the definition itself seeming to be not less arbitrary, because, being a general rule of procedure, the ultimate good which it seems to secure is not directly presented. A man does not rebel against undertaking things of which he cannot see the result, if the carrying out of some general principle is concerned; women require to have the future results set plainly before their eyes, they want to anticipate beforehand the final form of the whole, to know in what shape the unrest of action will be embodied in the end. This disposition, this happy faith that there is some answer to every puzzle, some mode of reconciling every conflict, some way of gathering up in the end the loose threads of broken effort, has unquestionably an injurious as well as beneficial effect on the masculine mind, women being able to produce this effect in consequence of the share which they have in education. That consideration of possible results which holds men back from action at moments when inevitable duty is in question, is generally due to maternal influence.

A man generally regards his property as what it really is, as a collection of usable and divisible means to various ends, and his liberality is not disturbed by the idea of breaking into some imaginary completeness which attaches to it as a whole; when women are extravagant, their extravagance generally consists in making purchases for which they will not themselves pay the money. On the other hand, property which they

have once acquired and actually have in possession often seems to them a kind of sacred deposit, all the parts of which belong to one another, and which it would therefore be wrong to disturb. What draws down upon their management the suspicion of a leaning to avarice, is not exactly an unwillingness to impart to others, but certainly, to some extent, that reverence for the intrinsic coherence of things, which is expressed equally in their horror of disturbing some treasured remembrance, breaking up some possession with which the whole of life seems to be entwined, and in their mysterious satisfaction in exacting "good measure."

Finally, I would venture the assertion that to the soul of a woman truth does not mean the same thing that it does to a man's mind. For women everything is true which is justified by a capacity of fitting in harmoniously and significantly into the rest of the world considered as a whole, with all its system of relations; they do not care so much about its being at the same time a reality. Hence they are inclined not to lying but to making a fair show, and if something presents the appearance they desire in some connection which they regard as important, they care little whether or not it would prove on investigation to be something which has any right to present that appearance. To wish to seem what one is not, is indeed a failing common to all humanity, but a man is accustomed to require, at any rate in the goods which he possesses, solidity and genuineness; among women, on the contrary, there is a widespread predilection for shams. Having such leanings, they are not given to scientific labours, and their mode of thought is artistic and intuitive. As a poet does not create characters by analysis and calculation, but is assured that they are true to nature if he can himself in his own mind follow their whole action with natural and spontaneous sympathy, so women love to put themselves in imagination in the place of things, and as soon as they have succeeded in getting some idea of what it is like to exist and move and develop in the way in which any given thing exists, moves, and develops, they think they understand it thoroughly. That the possibility of things being

and happening as they do involves a scientific riddle, is something which it is hard to make a woman understand. It is easy to see the connection between all this and some of the great goods of life, for instance, firmness of religious belief, and calm assurance of moral feeling; but we also find this preponderance of living tact over scientific analysis in many small and inconspicuous traits. Women employ a thousand delicate technical devices in their daily work; but they can with difficulty describe, they can only show, that which they have skilfully accomplished. Analytic reflection upon their own movements is so little familiar to them that one may affirm, without fear of being very far wrong, that such expressions as, *to the right, to the left, across, reverse,* express in the language of women, not any mathematical relations, but certain particular feelings which one has when in working one makes movements in these directions.

§ 4. But I am in danger of trying to exhaust that which is inexhaustible; and I am the more bound to avoid this because a consideration of life in the concrete shows us everywhere the part taken by both sexes in the whole constitution of life and its enjoyments. Still a brief indication of the limits imposed on each sex by its own special nature, may guide us in a special consideration of the divergent developments which we see arise from the national character of different tribes and races. We often find among the people of one nation that many mental as well as bodily peculiarities are transmitted with great persistence from parent to child for several generations, especially talents for those arts which are concerned with combinations of many elements that can be intuitively apprehended. Examples of the inheritance of mathematical, musical, artistic, and technical capacity are not rare, and with these are connected primarily the transmission of similar temperaments, in which we have already recognised general formal peculiarities of mental life. Parents are often astonished at seeing reproduced in their children the same faults and the same little tricks of which they are conscious in themselves; in civilised life, indeed, where persons of the

most differently developed characters unite to form new families, the very reverse of this is often seen, or at least we cannot trace the nature of the child to any mixture of the qualities of the parents; but on the other hand, among uncivilised tribes not only is a considerable constancy of such transmission to be expected, but the expectation is confirmed by actual experience.

We may try to derive all the national differences of civilised people from the influence of the peculiar conditions of their civilisation, which are to a great extent dependent on geographical position and the vicissitudes of history, this influence being of overpowering importance, and pervading the whole of life; but we cannot by so doing remove the general impression received from observation, that nowadays at least every new-born life comes into the world with some innate and inevitable national stamp, quite independent of its later contact with the civilisation of its nation. It would be useless to try and explain this phænomenon, as observers differ so much in their opinion of the extent to which it occurs. We cannot decide finally whether all races are capable of an equal degree of civilisation, but we find that the most favoured nations share in the development of humanity in unequal measure, and in ways peculiar to themselves, and we see that individuals of the same nations are very differently endowed with mental energy and activity; finally, we have every reason to believe that the savagery in which we find the coloured races of men is by no means a condition absolutely inseparable from their nature. Our primary deduction from these considerations is the conviction that to attempt to deny all original difference of endowment is a superfluous undertaking, for when we have denied it of the great divisions of the human race, it infallibly recurs in individuals, and such a connate limit can be no more oppressive for the former than for the latter. The only question is, whether all races of men have in common those capacities which are necessary to lead them to a participation in the moral inheritance of mankind, and to unite them in human fellowship. It is not now our

intention to give an answer to this question, which belongs to the Philosophy of History, but we shall find a preparation for the answer in a consideration of the general way in which the inborn nature of men is stirred up by the educative influences of Nature and of social relations to the production of all that is most essential to life.

# CHAPTER III.

## MANNERS AND MORALS.

Conscience and Moral Taste—Untrustworthiness of Natural Disposition—Food—Cannibalism—Cruelty and Bloodthirstiness—Cleanness of Body and of Mind—Modesty—Disparagement and Exaltation of Nature—Realism of Individual Perfection, and Idealism of Work—Social Customs.

§ 1. WHEN we sought in the human mind for the germ of moral development, we did not seem to find there any complete revelation directly enabling it to bring the relations of life, or even those parts of human conduct which are of most universal concern, into harmony with undoubted precepts of moral order. Even in an educated conscience, a lively conviction of the worth of an ideal by no means guarantees the simultaneous presence either of that sensitiveness of judgment which is necessary for discriminating instances of its genuine realization from spurious imitations, or of that creative imagination which can apply the well-known general type to particular cases without distortion or misapprehension. Many a man whose soul was deeply stirred by thoughts of the supremely good and beautiful, but who found in his own age no artistically perfect expression of his ideal, has fancied that he saw it realized in forms, the sorry poverty of which calls forth the astonishment of a later and more developed age. Forced to satisfy its longing with something which it has, the mind easily over-estimates those meagre outlines which it invests with the life and colour of its own feeling; and thus accustomed to take the will for the deed, it becomes unreceptive, timid, and perverse towards that fuller beauty which reality presents, and which if it only were intelligible would much more effectually satisfy the soul's needs. This has been very much the case with moral de-

velopment. We may, indeed, certainly ascribe to the human mind the possession of innate general ideas of Right, of what ought to be; but the moral skill which enables us to find, in every individual case, the special form in which this Right should be realized, is decidedly a product of progressive civilisation, and happy traits of natural disposition are not a full and sufficient but only an extremely imperfect and fragmentary substitute for it.

This will appear to be self-evident with regard to all those more important human institutions, such as the State, or the organization of civil society, which, in as far as they are the intentional product of human skill, can only be founded on a knowledge of the thousand-fold relations which bind the members of a society both to one another and to the conditions of external life which they have in common; and this knowledge can only be attained and gradually perfected by the actual experience of life. But where man is related to his fellow in a way that does not involve any of these complicated relationships, or where he dwells alone face to face with external Nature, one might suppose that his conduct would be guided more unambiguously by the innate voice of Conscience, prescribing to him not only fitting ethical sentiments but also the manners and morals corresponding to these as their natural expression. However, a comparison of the different modes of human life teaches us the very contrary. What it is fitting a man should do or leave undone, in what way it is becoming that he should order his surroundings and his social behaviour, what he should esteem and what he should avoid, and what things are without claims upon him, and of no importance to him—finally how he ought to dispose all his conduct and every detail of his action, so that his life may be a harmonious whole—all this must be learnt in a long course of development, and never can be fully learnt. The innate goodness of mankind is very far indeed from leading directly to such a development of morality.

Many a simple custom of peoples who are yet uncivilised may well compare favourably with the distorted growths of

our civilisation; the unsophisticated manifestation of isolated traits of natural nobility may well have a charm for us; but around these bright spots the shadows lie all the deeper, and the general character of this life of Nature, and of every people that is in a state of Nature, exhibits the instability, the incoherence, and the incalculable inconsistency with which, side by side with attractive manifestations of particular moral feelings, inhuman crime and the most astounding perversity of conduct flourish in rank luxuriance. We are struck by some advantages of a state of Nature which are for the most part, though never necessarily, sacrificed by civilisation for the sake of higher ends, and we long to return to the simplicity of such a life—forgetting that it is civilisation itself which has sharpened our appreciation for it as presenting a pleasing contrast to the conditions that are evil in our own state, and that with the charm of such an existence there is associated a poverty which neither knows nor can produce a large proportion of the best goods of life. In such moods we are but too apt to lose courage, and it is this which so often makes us turn back from the complication of great and not altogether successful undertakings to refresh ourselves with the complete success of more insignificant works, rather than push forward with a good courage notwithstanding. A little flock is soon counted; and he who shrinks from venturing on the open sea and steering his course among the thousand conflicting claims of a civilised life which, as regards all mental interests, is stirred to its very depths, can easily construct an idyl on which the eye may dwell with momentary satisfaction, but only to turn away from it wearied after a very brief space. A fine climate, inherited excellence of bodily organization, and absence of hard work, develop among men, as among beasts, the greatest beauty and suppleness of form, and a natural gracefulness of carriage, independent of any deep spiritual life; kindliness and good nature which we would gladly count among innate human qualities are very likely to brighten life and beautify it by traits of social refinement in cases where simple relations exist which give no

occasion to lasting and deep-rooted conflict; but untutored spirits are not accustomed to take a comprehensive view of human life; they know not its significance and the aims which are set before it, and hence they find only too many barren spots in life, too many moral difficulties which receive no decided answer, too many practical questions which may, it seems, be answered indifferently this way or that—and which consequently are frequently decided in accordance with the impulse due to temperament and external circumstances, leading often to an extreme of inhumanity and a barbarism which are in the most violent contradiction to the amiable traits that promised so much.

This moral untrustworthiness is by no means peculiar to uncivilised peoples in their natural condition. Even in our own highly civilised state, many an evil disposition is kept under only by the unremitting pressure exercised on all sides by the authority of systematised social forces; and not only so, but narrowness of moral insight, want of a delicate perception of the way in which the moral ideal should include and animate even the simplest relations of life, and all the rudeness of mere selfish subjectivism might appear at any moment, even among us, with most confusing effect if past centuries had not preserved and matured mighty spiritual forces of objective validity which they have handed down to us in the treasures of science, art, law, and religion. It is these which help the nobler minds to recognise that close connection between all the most sacred spiritual possessions of men which the individual could not discover unaided, whilst they keep baser natures within bounds as a system of institutions which, though uncomprehended, happen to have the authority. And finally, at no time can we say either that this vast fabric of human civilisation is completed, or that all its parts are at the same stage of advancement. In all societies there are departments of life which, though susceptible of thorough moral cultivation, are yet given over to individual caprice arising from temperament, as though they were subject to no law or rule; on the other hand,

there are customs, really indifferent in themselves, which have become established as having the force of absolutely binding commands, much to the detriment of progress. Finally, our morality as a whole suffers from a deficiency which it never will, and indeed never ought to, surmount wholly; a deficiency, namely, of perfectly clear theoretic insight into the grounds of the binding validity of its demands—such an insight as would be capable of making faith in the dignity of moral institutions independent of any change of mood, and hence out of the reach of that scepticism which passion and the sharp troubles of our earthly lot only too easily arouse.

In saying that this deficiency ought not to be wholly surmounted, what we mean is that it would not be advantageous for moral development if the binding truth of all particular moral commands, and the indissoluble connection between them, were presented to individual minds with the theoretical certainty of an arithmetical proof, and if it were not left for every soul to fight its way through the battle of life, by living, believing action and effort, to this clearness of comprehensive moral intuition. As a possibility of doing ill is everywhere a condition of the realization of what is good, so this peculiarity of moral cultivation makes possible both original divergence to barbarism and a relapse into it. The dignity of any moral custom or ceremony can very seldom be convincingly shown when it is regarded in isolation and not in its connection with the whole spiritual significance of human life; having a thousand roots entwined in this, it is generally wholly incapable of a concise syllogistic proof that does not, in its turn, require to have its own presuppositions supported by an infinite series of proof. Just on this account every moral command is exposed to the destructive sophistry which, taking anything that appears an abomination to our civilised ideas, can so separate it from its relations with the whole of life as to make it seem merely an innocent matter of fact. And not only so, but we also learn how impossible it is for the untutored reflection of a so-called state of Nature to avoid developing what is crooked and barbarous, side by

side with those elements of personal merit to which a good disposition prompts.

§ 2. It may not be uninteresting to recall some instances both of the dawning Moral Taste which led men gradually to seek emancipation from the guidance of mere natural instinct, and also of the mistakes to which reflection was exposed in this progress. If we begin with a consideration of the bodily wants which first roused men to barter, and to the adoption of some simple rules of life, we observe that no people have ever had any moral scruple with regard to the consumption of vegetable food. The whole course of vegetable life is so unlike our own that the ripening fruits seem expressly fitted for our use as mere means, equally removed from the unserviceable toughness of inorganic material, and from that animal life which checks the longing of appetite by a kind of natural repulsion. The pious anchorite, feeding on roots and fruit, or at the outside on honey—the product indeed of animal activity, but itself inanimate—and the tribes who, in primitive innocence, support existence on the produce of the bread-fruit tree and the date-palm, are pictures which are harmonious in themselves, and with which our fancy is familiar. But dawning civilisation soon grows ashamed of such an unsophisticated use of Nature's raw products; it seems not altogether becoming to live so directly from hand to mouth, and the fruits of the trees and of the fields come to be at least gathered together and stored up, before they are wanted for use. It is as though the mere lapse of time between the moment when Nature matures them, and the moment when we enjoy them, had loosened their connection with the outer world, or as though they had become more assimilated to our own nature through being in our possession for a time. But it is seldom that we stop here. The inventions of cookery may indeed be chiefly intended to enhance a pleasure of sense, but we may certainly find another and less obvious motive of culinary activity in the obscure impulse which urges us to disturb the form given by Nature's own hand, to alter the raw condition of nutritive

material, and to give to this before we use it, as far as possible, the character of a product of our own fancy. It would be a mistake to object in answer to this that when we escape from the ceremonious propriety of our civilised life, we delight to climb the trees and eat the fruit as we pluck it from the bough; it is just because our sense of civilised existence is so strong that we take pleasure in divesting ourselves for a moment of that which we can always resume at will, and in dwelling for a moment with satisfaction on the consciousness that our life is a life of sense, and in close connection with Nature. The truth of this will be readily seen if we imagine how odd it would look for man, the thinking creature, to go out daily at meal-time into the fields to devour a turnip on the spot, just as he had pulled it out of the ground.

But nearly every dawning civilisation has had scruples concerning the lawfulness and propriety of eating animal food. Man has such a deep horror of consuming the dead bodies of those animals which have died a natural death, that he has always preferred to undertake the intentional killing of beasts, this destruction being to a great extent made less repulsive to him by the excitement of having to defend himself against their attacks. But in the choice of what we use for food an unquestionably moral taste has gradually prescribed limits, the worth and significance of which it would be hard to reduce to definite notions. By civilised peoples it is almost exclusively vertebrate animals that are used for food, and even among these amphibia at any rate have never been generally used; among the invertebrate animals, on the other hand, we can mention a few, and but a very few, such as the oyster and the crab, which people venture to consume in their natural state, whilst some others, as snails, are only endured as disguised ingredients of prepared dishes. It may be easy for the doctrinaire mind to prove that at bottom meat is flesh, if indeed it does not succeed in establishing the still more remarkable discovery that the range of our natural appetite is coincident with that

of albuminous material in the animal kingdom, and that it ceases when we come to the lower orders of animals where these materials are replaced by others of different composition and more heterogeneous to us; but spite of all reasoning, the natural taste of civilised men adheres obstinately to the opinion that animals do certainly differ from one another in being some clean and others unclean. To eat insects and worms, leeches, maggots, and vermin, will always be regarded as a mark of hideous barbarism, however great their nutritive value may prove to be.

It is partly the shapelessness of these living objects which disgusts us, partly the numerous disagreeable qualities attaching to their exterior—as, for instance, slimy coldness—partly the strangeness of their appearance, and even their small size: for though we may take animal food, eating of meat which comes before us in pieces of considerable size, there seems something repulsive in the idea of consuming whole organisms with all their vital apparatus, something revolting in swallowing an object that comprises in itself the variety of a complete though minute anatomy, that we cannot disjoint. We thus seem impelled by a natural instinct to the consumption of creatures which are of a higher order, and whose organization is more akin to our own.

How dangerous this indication may be in itself does not need to be specially emphasized; it is plain that logically followed out it leads to Cannibalism. And, indeed, it is hardly to be doubted that men in a paradisiacal state of Nature have often enough in all innocence followed it out to this result, seeing no evil in it—indeed, even when the dawn of reflection had broken, they were by no means at a loss for pretexts which should invest with the semblance of tender consideration a custom we regard as the very extreme of inhuman barbarism. What could be a more appropriate fate for the organic remains of beloved persons than to be converted forthwith into the living flesh and blood of their descendants, instead of being consigned to the horrors of corruption? A man may be absorbed in tender recollection of

the friend whom he has eaten, as he plays with the bleached knuckle-bones of the dead, and he may listen in amaze to the horror expressed by a civilised stranger at such proceedings. It may be objected that even cannibalism revolts from devouring the bodies of those who have died a natural death, and that therefore as a matter of fact, the feast of a cannibal must always be preceded by murder. But what is there that could effectually restrain men who are in a state of Nature from killing their enemies, or even neighbours to whom they are otherwise quite amicably disposed? We should remember how fond we ourselves grow of the domestic animals which we feed for human consumption, and how, without feeling any particular moral contradiction, we give them a final caress the evening before they are to be slaughtered. So much that is contradictory finds room in our minds, that we ought hardly to feel boundless astonishment at hearing of wild tribes who invite their parents, when becoming aged, to let themselves be killed and eaten, and when we find that the soft, natural grace and friendly deportment of the South Sea islanders hides a craving for human flesh.

If one thinks how easy it would be for an ingenious mind to bring forward whole series of reasons, plausible and hard to be refuted, in justification of such atrocious customs, one sees the more what a vast moral effect civilisation produces by merely holding fast the opposite conviction, and by its unhesitating and energetic refusal of such sophistry. The real positive grounds of this civilised conviction will probably not be alleged ordinarily, for they do not lie on the surface of our civilisation as isolated maxims which can easily be collected thence, but are bound up with the very foundation of our whole philosophic view. The deeper our insight into human destiny becomes, the more sacred does every individual human being seem to us, and the more unconditionally do we refuse to attempt to take the measure of his relative worth, with a view to determining whether he has already accomplished his task and tasted his share of happiness, and may now be treated as mere matter devoid of rights, which we may, if we choose

consign to destruction—finally, the more intolerable becomes the thought that the body, which, as the vesture of a human soul, belonged to that soul in an unique sense, should be disintegrated in any other way than by those natural forces to which it owed its formation, or that its substance should be used by others as a mere means for the support of animal life. The spirit of civilisation has set upon human personality that seal of inviolability which the perversity of a state of Nature sometimes sets upon external objects; and wherever our conduct is not actuated by this sentiment, wherever Law and Society still treat individuals as though they were *things*, there our civilisation is marred by a remnant of barbarism, and there we have not yet succeeded in vanquishing the principle of barbarism altogether.

Even to have vanquished it in essentials has not been easy, and a glance at very various periods of history is sufficient to convince us that the task is not yet completed—that a considerable degree of so-called civilisation is not incompatible with a sanguinary background of cruelty, sometimes proceeding from natural savagery, sometimes from cold-blooded bigotry. We very often see in children a disposition to torment animals; and it is said that the North American Indian never passes a bird's nest without destroying it. Among barbarous tribes it is often found that not only the physical courage which they have in common with the beasts, but also many a trait of weak voluptuousness is combined with deliberate cruelty; and if thirst for blood is not a prime characteristic of human nature, neither is there implanted in it anything like such a horror of bloodshed as many an optimist thinks. In the early stages of almost all civilisations we find the custom of avenging blood by blood; and the fact that we meet with it as a custom, as an established duty, shows that this wild impulse of revenge was passed on from a state of barbarism to ordered societies, which were incapable of repressing it. The East Indian Thugs and the Assassins I will merely mention, for we very easily credit mystical fanaticism with utterly obscuring human feeling,

even in the midst of civilisation which is in other respects far advanced. But in the most enlightened age of Greece and Rome we find the exposing of weakly children recommended in the most open way, in an ideal constitutional construction; and we find, in practice, the abomination of a system of slavery, that could not claim even such justification as may be found for the white slave-owner of the present day, in the contempt that he feels for the black-skinned race which he reckons as belonging to the inferior animals—a system in which, on the contrary, men were enslaved by others of their own race, and in which there was much more cold, systematic cruelty than in modern slavery, and hardly less of passionate savagery. And all this in a Golden Age of art, and amid the glory of one of the great kingdoms of the world.

But we do not need to go back to distant centuries for instances of what lies at our very doors. I am not alluding to the evils inseparable from war—war which springs up again afresh in every age, and which it is idle to hope that we can charm away with the olive branch of peace. When advanced civilisation turns to this last resource, it is not because any delight in outrage stirs it to the temporary unchaining of murderous forces, but because it recognises that the complication of the situation is too great to be solved by existing human wisdom. No one denies that, spite of this recognition, the solution would often be really very easy to find; but the very fact that the right view does not obtain general acceptance and realization, is one of the inevitable deficiencies of every civilisation which has recourse to the *ultimatum* of war. So men betake themselves to the extreme remedy of momentarily suspending those laws of humanity by which we are ordinarily bound, and of referring to force the decision which has been sought in vain from wisdom; yet still the suspension is only partial, and men always regard as sacred, at least those forms of intercourse which serve to facilitate the return at any moment from a state of violence to peaceable relations. Therefore, however lamentable it may be to see this appeal of

civilisation to force recurring again and again, we find even in the appeal itself a reference to that good to which men hope it will help them to return; but there are not wanting proofs of a continued influence of barbarous philosophy in suggestions which are made unhesitatingly even in our own time; in incitements to wars of extermination, in exhortations to assassination, in instigations to go beyond legitimate self-defence and the re-establishment of justice, to deeds of immoderate and bloody revenge.

§ 3. Let us, however, turn back to those simple phænomena in which dawning civilisation betrays a gradual heightening of the human sense of self-esteem. To keep one's own body free from all accretions of extraneous matter is an impulse of cleanliness which is everywhere a sign either of the beginning of culture, or of a happy natural constitution that promises to favour the establishment of culture. On the whole, we can hardly maintain that cleanliness is natural to men in a higher degree than to the beasts; it springs up spontaneously among people who are invited by the proximity of the ocean to frequent indulgence in the pleasure of the bath; but where this favouring condition is absent, we find not only that barbarous nations are extremely uncleanly, but that even among those who have pretensions to belong to the civilised world, uncleanliness is quite compatible on the one hand with effeminate good nature, and on the other hand with active æsthetic taste for beauty in outward form and movement. Uncleanliness is unendurable only to those civilised nations who strive after order and consistency in their inner life, in their whole system of thought, in their feelings and endeavours. Gifts of genius, as well as benevolence of disposition, have in every respect an extraordinary compatibility with uncleanliness and disorder; on the other hand, nations which are not so remarkable for these endowments, but which produce more perfect characters, will be inclined to the same nicety and systematic precision with regard to their own persons which they introduce into their occupations and surroundings.

I am not, I think, having recourse to a far-fetched analogy when I couple with this outward virtue the inner virtue of truthfulness. The worth of truth, and the total impossibility of carrying on human intercourse under a system of barefaced lying, is so strongly felt, even by men in the most barbarous state, that lying has always been regarded as the root of all evil, at least in certain circumstances in which men reckon upon truth. But the impulse to speak truth is not directly bound up with the recognition of its worth, and it is only in civilised society that the liar appears to himself worthy of condemnation, whilst the life of barbarians is in many respects founded on craft and carefully cultivated hypocrisy. We may remark that to a man of morally cultivated mind it is peculiarly hard to tell an isolated lie on the spur of the moment for some temporary and isolated end; he feels that it disturbs too conspicuously his consistency as an individual, and is conscious of being untrue to himself; it is much easier to make consistent lying the maxim of his conduct; in that case he can still be conscious of having a coherent individuality, not destitute of all method and order. The same thing is seen in the case of other moral relations; men hesitate to infringe one isolated law of social order the more if they still recognise the others, and by this recognition condemn their own deed; it is somewhat easier to set oneself in opposition to social order altogether, and to wage war against the world, like some monster cut adrift from it. In such a course there may yet be expressed — though misguided to the last degree — the impulse of an individualizing personality to establish the basis of its own conduct not in dependence on foreign conditions, but in systematic complete harmony with itself.

Around these rare cases of conscious grand systematic untruth clusters the incredible amount of petty incoherent falsity, which in the most varied forms pervades all strata of civilised society, and which seems to me much less akin to lying in the ordinary sense than to that impurity and untrustworthiness of the inner life which appear, only im-

perfectly veiled by fair appearance, as the general rule among barbarous men. To a character of thorough moral development every entangled complication of circumstances, every uncertainty regarding claims which it is entitled to make or called upon to satisfy, every doubt about its relations to others is as odious as bodily impurity. We need only compare with this the prevailing inclinations of the lower classes, in order to see those moral deficiencies which it is so hard for imperfect civilisation to avoid; the difficulty of extracting from them a definite, decided promise, their constant disposition to leave everything they can in a state of fluctuating uncertain indecision, their inaccessibility to the notion that one's word once given is of binding obligation, and—in wider circles—the propensity to cling to doubtful and untenable relations, the hope that if one never takes a decided step one will be able in the hurly-burly of events to snatch some advantage, of which one has at present no clear notion—in short, inexhaustible patience with all sorts of confusion, and a delight in wriggling on, with the help of procrastination, waiting about, half-admissions and retractions, and general uncertainty, through the course of events which to men thus inclined seems itself equally uncertain. Among the more intelligent upper classes the same deficiency recurs, but under other forms, or under the same forms, but in different connections; among them, as among those whose conditions of life are less favoured, the noble spirits are but few, but there are some of these in all ranks of life—souls who, with an unwearied impulse towards truth, renounce all those pretexts with which the slothful of heart seek to excuse this mental instability, and who, moved by the enthusiasm and force of moral conviction, not only desire to make their whole duty clear before their eyes at every step of this changing life, but also obey with unhesitating decision every clear call to action.

Unexpected perfidy and perfectly sudden and inexplicable changes of mood have always been the first warnings which have roused mistrust towards the deceptive friendliness of

barbarous men. It is the nature of a beast to act in accordance with the passion of the moment, but in a man the passionate motives to action due to momentary feeling should be moderated by the counterbalancing force of the other moral motives which the memory of past experience has stored up. Children and barbarous peoples lack this retarding or regulating flywheel that can hinder, as in machines, the precipitate course of springs once set in motion, and we can as little rely upon their moods as upon the course of the weather. To realize this one must look into one's own mind. How easily is one inspired with momentary enthusiasm by some noble thought, or the idea of performing some magnanimous deed! But this excitement is followed by a state of nervous exhaustion, or, to state the case more simply and honestly, by laziness; there wake up all sorts of little likes and dislikes which were hushed at first; and at last, although the work may, as we had pictured it to ourselves, be indeed a noble one, yet all the same we find that we can get on without it, and besides who would thank us for our pains if we were to trouble about it? Here we see that moral weakness which so lightly dons the cloak of heroism, but has not the enduring strength necessary for holding fast the ideals of youth, and then coolly, as though it had long ago weighed the whole matter, rejects as an idle dream that which it was too lazy to convert from a dream to reality. In a mind which has not been furnished either by education or by rich experience with power sufficient to withstand this sloth, the obscurer of all that is good, but which retains unimpaired the capacity of appreciating every passing advantage or disadvantage, the sloth will be almost necessarily intensified to falsity. Any fancy that crosses the mind, any unfamiliar association of Ideas, rouses mistrust, and disturbs the equilibrium of these poverty-stricken souls, for whom all steady social intercourse makes shipwreck on the rock of their own incapacity to calculate and guide the course of their inner life—a course which is not amenable to any standard of reasonableness, of principle, and of self-government. We find that

this running wild of the course of thought and of changes of mood is not confined to men who are in a state of barbarism, any more than other moral deficiencies are; on the contrary, it is found among all nations except those which by a long course of development embracing equally all departments of human life have become the very repositories of human culture; and alas! the genius of civilisation—quieter, self-centred, hemmed in by a thousand self-imposed limits—is but too often imposed upon by this as yet unexhausted "natural force." For we find ready to our hand this and other flattering names for such untamed and untutored wildness, which bribes our æsthetic judgment sometimes with the heroic noise of boundless passion that must have its way, regardless of consequences, sometimes with the different charm of something unique, incommensurable, supernatural. We too easily forget that much which looks extremely well in a picture and has a striking effect in poetry, would make us heartily ashamed of our prepossession if we were to see it, not at a single favourable moment but in the ordinary course of life, in connection with all its manifold results. The charm of what is strange and full of characteristic expression and one-sided originality, is so great that it leads every one to be sometimes unjust towards that consistent, thoughtful, steadfast order of civilised life which though less warm in colouring is ineffably more worthy.

§ 4. We now turn back once more to the most fundamental relations between Nature and Man; to the great mystery which joins our spiritual life to our bodily form, and mental excitations to external gesture and movement, which binds up the continuance of our personal life with the continuous activity of the physical machine of our body—that body which we so cherish as long as it serves us, and which we regard with such strange horror as soon as life has departed from it; by which, finally, our existence altogether is made dependent on the inexplicable secret of bodily reproduction. The more deeply conscious the soul is of itself and of its destiny, the more obnoxious to its self-esteem is the

direct unity presented by the combination of the inner life with the marvellous material organism, the soul being inevitably forced to sympathize intensively, by pain and pleasure, with all the excitations of the body, and to trust to it for the expression, the accomplishment, and even the very quickening of its endeavours. For in truth the soul can enjoy the full warm life which alone can satisfy it, only if the supersensuous play of its states and activities is supplemented, as by a sensuous echo, by the sum of all those feelings which seem to make known to us the strength and elasticity, the tension or relaxation, the rest or the sympathetic stirring of desire which affect our material part. Our spiritual nature is everywhere ashamed at finding itself in indissoluble connection with the world of sense—at the consciousness that while its own aims have intrinsic worth and are incommensurable with material processes, we are yet bound by the mechanical order of Nature, and that of our whole destiny no part could be realized without those natural impulses by which our endeavours are provided with tangible objects and means of attainment: it is the dim consciousness of all this which in the dawn of moral culture has produced those various developments of the sense of shame by which the human race is everywhere prompted to veil the physical basis of its spiritual existence, especially when this physical basis furnishes the pre-eminently sensuous means by which we must reach the most precious and spiritual treasures of life and love.

I will not attempt to decide what is the significance of those traces of a sense of Modesty which appear even among beasts, or to what extent it may be an innate natural feature of the human race. Observation of barbarous peoples reveals to us sometimes a considerate delicacy and purity of manners, but much more often a bestial absence of restraint in the satisfaction of all physical wants; and we are left in doubt which of the two we should regard as original and which as the result of dawning civilisation or of almost total relapse into savagery, or, indeed, whether we should not refer differences in this respect to peculiarities which are not shared

by all mankind. However, beside the moral sentiment on these subjects which has on the whole become established among all civilised peoples, civilised reflection and sophistry have produced two one-sided but mutually-opposed views: on the one hand, the exaggerated contempt with which a fanatical spiritualism looks down upon all Nature as something in itself unclean, shameful, and degrading, and to be resisted by every weapon of a gloomy asceticism; on the other hand, the cool assumption that everything which is natural is pure. Neither the former opinion with its hatred of Nature, nor the latter with its easy complaisance, has succeeded in guiding the moral feelings of civilised humanity on the whole; but both have had an important practical effect on the temper of different times, and both have in many ways obscured theoretic belief concerning the grounds of such moral feeling and the demands made by it.

With regard to those deep and sacred joys of life which we can reach only through the middle term of sense, it is not a genuinely human feeling of modesty which leads us to despise and reject them merely on account of this medium, to which they are joined in the order of Nature; on the other hand, in that intentional prying into this mysterious connection which vainly seeks to justify itself by the pretence of serving science, there is an unconscious immodesty; and not here only, but also in analysing, for the confirmation of christian humility, all the foulness and corruption on which rest the beauty and proud gladness of our life—in brief, in the disposition to hunt after that which is impure and sinful, of which there will be the more to be found in proportion as the imagination which seeks it is the more corrupt. The man of genuine moral feeling sees primarily that which is pure and noble and divine in things; the indissoluble connection of all this with the world of sense seems to him to be entailed by his own finiteness, but to have no power to destroy his faith in the worth of those blessings which are only accessible through the medium of sense.

But on the other hand, the principle that all which is

natural is to be regarded as pure, leads to a mode of thought and action which is rejected with equal decision by cultivated moral feeling. It can naturally be no reproach to a finite creature to be subject to the wants entailed by his bodily organization, and to say merely this would be to show but cheap wisdom. But that in our consideration of human life as a whole, we should regard these calls of Nature as entitled to put in an appearance without check or reserve, and to be reckoned in their primitive simplicity as among the phænomena of moral development—this is a notion which we must in all cases reject as a mark of inhuman barbarism. It is difficult to say whether the claims of moral culture in life and in art are more deeply sinned against by the impassioned voluptuousness which breaks through many a moral barrier, and misuses poetry as a means to its own glorification, or by the cold unemotional temper, which—taking a pride in being beyond the reach of temptation and knowing nothing of what is seductive but only of what is unclean—seeks this last, and with naked plainness describes or practises it as being, or belonging to, "human nature." If voluptuousness leads sooner to the transgression of moral limits, yet at least there is in it the remembrance of a natural charm to which the human impulse is subordinate; but in that realism, coarse and scornful by turns, which takes pleasure in emphasizing the inevitable earthly element in all that is fair and noble, and in recognising with deliberate expressness the impurity which our nature cannot shake off—in this there is a corruptness of imagination which far more completely, though perhaps less quickly, blunts all moral sensitiveness. Beside two such monstrous growths the principle of the purity of Nature will certainly for the most part lead to a middle path; it will allow the general practical necessity of modest decency, but will blame as exaggerated sentimentality the wish to ignore those natural facts which it is in truth impossible to deny. The conduct of grown-up men and women tends for the most part to be in agreement with this view, which with simple straightforwardness inclines to call everything by its real name.

Unless people are guarded by a noble refinement of mind, the older they grow the less reticent do they become with regard to their physical nature—increasing bodily infirmities incessantly call attention to the functions of animal life, and give occasion to seek medical counsel and help; and thus is gradually shattered the proud, shy modesty of the individual spirit, the attachment of which to its disintegrating envelope begins to be loosened. If in contrast to this we recall the indignation of some young and lofty soul, when in ordinary life in the intercourse of elder persons it hears others treat and discuss and bring before it with idle indifference circumstances which it feels impelled to conceal even from itself, we shall be constrained to admit that even the well-meaning moderate view of steady-going folk involves a sensible retrogression in moral refinement, and that of all kinds of enlightenment none is more hazardous than that which conflicts with the prepossessions of modesty.

We are in the habit of expecting this feeling to be most active in the intercourse of the two sexes, and in fact the forms by which such intercourse is regulated are all the more essential marks of high moral culture because definite forms are so little prescribed in this department of ordered life by mere natural circumstances. The only kind of marriage which would everywhere seem unnatural is that between parents and children, and this on account of the disparity of age; but Nature enters no protest against marriage between brothers and sisters, and presents as many analogies in favour of polygamy as in favour of monogamy; indeed, mere Nature provides us with no reasons why we should substitute a life-long union for a temporary connection formed for the gratification of desire. All the limits which the human race has set to its desires of this kind are the product of a gradually awakening moral sense; the attempt to find for them a natural foundation which does not exist, does not make them any the more sacred or intelligible. For we are neither justified in following the dictates of Nature merely as such, nor bound in duty to do so; it is only when we act contrary to those commands of

Nature, on obedience to which all successful action depends, that our procedure is vain and criminal; but with regard to those things which she leaves to our option, the moral nature has to make a nicer choice, a choice which can only be justified by its ideal end. There is no other particular of ordered life in reference to which there has been a more strange divergence in the variety of custom, and this variety is to be explained by a consideration of the different degrees of clearness with which the worth of human personality and of the individual soul was presented to the imagination of different ages and nations. To some nations of antiquity, marriage between brothers and sisters seemed admissible; to us it seems so incomprehensible that its inevitable necessity, in case of the human race having sprung from a single pair, has been thought a sufficient argument in disproof of this view of our origin. But to think this is clearly wrong; for it is certainly an error to imagine that the sinfulness of such a connection is immediately declared by the voice of Nature. On the contrary, the voice which declares it is that of the most highly developed moral insight, which impresses upon men a horror of mingling two human relationships, of which each can be experienced in the whole fulness and beauty of its ethical significance only if it is kept uncontaminated, by isolation from the other. This monition could have had no weight for those primitive brothers and sisters who were as yet all the world to each other.

As we associated purity of the inner life with bodily cleanliness, we would also assign to modesty a wider range than is generally considered to belong to it. As it is certainly a mark of defective civilisation to neglect the development of the bodily frame and its capacities, so is it little in agreement with genuinely moral feeling to make one's bodily presence conspicuous and to wish to be esteemed on account of it. The more highly civilised nations and the more cultivated classes of society consider as most essential to a fitting dignity of demeanour that correctness of external appearance which neither can be found fault with, nor attempts to show off any

personal advantages, and which is thus best adapted to prevent any undue attention from being excited by one's personal appearance. On the other hand, it betrays a lower degree of culture to show off physical strength and skill, except in work in which they find appropriate employment, and to wish to do one's work in the world by means of a noisy display of one's bodily gifts.

In respect of this, nations and individuals are divided into two distinct groups, the peculiarities of which pervade and give a tone to all departments of culture. There is one disposition which—to employ here one of the most repulsive phrases which modern times have invented—considers that the business of life is *to develop oneself* (*sich darzuleben*); there is another which, forgetting and neglecting self, tries to find a reflex of its own Ideas in any finished work, any labour, any external order; each has for the other an antipathy which only gives place to mutual admiration when they look at one another from a distance, and the one sees its own deficiencies supplied by the other's peculiarities. We will, however, not conceal the fact that in the interests of human culture we are decidedly in favour of the last, notwithstanding all its shortcomings. A deep-rooted aversion to take in hand any hard instrument not easy to manage, and to do a spell of honest work, is in the case of men of the disposition which we first noticed, ordinarily joined with an inclination to make a boundless fuss about their own appearance and about all those physical powers which the bodily organization graciously and gratuitously puts at the disposal of the fancy. Continual inquisitive activity of the senses and quick receptivity makes such men good observers while they do observe; but their attention being easily distracted, for the most part they grasp only the superficial harmonies or discords of external form, only what is graceful or ludicrous. They likewise feel an unceasing need of manifesting their inner life with all its emotions, however transitory and insignificant; and this on the one hand leads them to be always making a show and trying to give a picturesque and heroic air to their finery or their rags, and

on the other hand tends to bring their minds, even in solitude, into a dramatic frame, in which they take a secret pride and pleasure. Little inclined to real exertion, they make the most perfect theatrical use of their bodily gifts; they are eloquent, and in their language indulge in far more of high-sounding and diffuse description, colouring, and ornamentation than there is any occasion for, they are given to song and noise, and add to all this the luxury of expressive gesticulation. It is chiefly the southern countries of the temperate zone which by their fineness of climate have produced in their inhabitants both a bodily organization which combines beauty and strength, and also a keen satisfaction in the endowments and capacities of this corporeal frame, and in addition to these the passion and vividness with which they feel to the full the joy or admiration, the love or hatred, the devotion or despair which any situation may call forth. If we add to this the approving definition of their nature, long ago adopted by philosophic reflection, and say that in them and in their culture we see attained the highest development of the living human form, we think we shall have sufficiently indicated the shortcoming which is attributed to them by men of the opposite disposition.

For to cultivate oneself, and to make oneself into a perfect human being, may easily seem to be the essential scope of all human tasks; but nevertheless we must admit a deficiency in this mode of thought, which aims solely at moulding its own being into a beautiful flexible whole, doing this partly with a kind of natural instinct, partly with doctrinaire self-consciousness — a deficiency, namely, in that submission and self-sacrifice which make one element of morality. And this remark does not apply merely to that so-called healthy natural sensuousness which, glorying in the endowments of the physical organization, does in truth accomplish no more than the production of a first-rate specimen of the species *man*, looked at from the point of view of natural history; we must also blame, as a more refined kind of Egoism, the deceptive self-culture which does indeed always seek that which is good

and noble, but only in order to adorn with all the ornaments of virtue that specially cherished central point which we call our Ego. All the duties imposed upon itself by a mind of this temper seem to it to be duties to itself alone; the dignity of its own personality is the end to which every effort of life is devoted.

It cannot be said that the other mode of thought which we contrasted with this does not accomplish the same results, but the consciousness of personal dignity comes to it rather as an accidental gain, because it does not aim primarily at this end, but, forgetting and denying self, works for the general realization of what is good in all the world. Indeed, it would be more in accordance with truth to say that what it gains is not the consciousness of personal dignity, but the habit of feeling and acting in accordance with this; and also it attributes less value to the efficacy of external expression, which will naturally belong in greater measure to him who regards himself as a work of art to be polished to the utmost pitch of perfection. To be of use in the world, and to do one's work in life by labouring for the general good, is the comparatively prosaic motto of men of this character; and their own personality is regarded as but one among many—the many who are to share in the general benefit and rejoice at it. Wherever at particular periods, or in particular nations, this mode of thought has preponderated, there has arisen delight in work of a kind that not only is advantageous to the community, but also affords in its products an objective reflection of individual personalities—products in the characteristic forms of which the worker sees embodied the worth of his being and his own creative fancy. Not himself, but what he has made, not his person, the product of cosmic forces, but that reflection of his own being in his surroundings which his bodily and mental labour and self-sacrifice have called forth—these it is which such a man regards as what entitle him to a place in the world, and in proportion as this feeling grows, there increases also his aversion to any ostentatious display of a personal strength and beauty which are the gift of Nature. To speak louder than

is necessary, seems to him an uneducated display of vocal resources; to be more excited than the importance of the occasion justifies, appears to be a foolish yielding to the sheer power of the external stimulus; he regards as unendurable all liveliness of gesture, all pantomime and movements of the hands which accompany simple verbal expression as a mere luxury of bustle, wholly useless and ineffectual; and the objectless and overflowing manifestation of mental moods is as repugnant to him as to be everlastingly thinking how to pose effectively. It is easy to see how these contrasts of external demeanour are connected with points favourable and unfavourable to mental life, and how this disposition of mind, if it becomes still more self-contained, threatens the beauty of life and art with a self-absorption, a closeness, and a reserve which are in truth little in accordance with its original self-forgetting and self-sacrificing bent.

I must renounce the attempt to investigate, within the narrow limits of these observations, the other innumerable peculiarities of moral feeling which are expressed in the forms of daily intercourse among men, and the development of which is due partly to the special circumstances of life, and partly to the original disposition of particular nations. We may remark in general that as culture advances, expressly established rules of etiquette become more numerous, not only for the regulation of the conduct of inferiors towards superiors, but also to prevent personal dignity from being wounded in the ordinary intercourse of life by natural passion and curiosity, or to secure the performance of binding duties against which sloth and selfishness rebel, by the sanctity of inviolable custom, regulating even the minutest details. The less scope is allowed to arbitrary choice in determining the mode of any performance, the more imperative does the performance itself seem. (In saying this, we would by no means deny that the refinement and politeness of manners, hospitality, and other virtues which we find exercised in states of rudimentary culture, may not be partly founded on natural good-heartedness.) The further progress of civilisation generally breaks these

trammels of conduct for good and also for ill. In modern life even in the cases in which etiquette is most thought of, generally speaking it either has a legal or political significance, which is of use not in personal intercourse, but as a symbol of that objective order which transcends all mere subjectivism—or, if it is really a form of intercourse, it is seldom of such rigidity that a cultured person would not be able to substitute for the ordinary form some other of similar significance. Here also culture drops the use of fixed and specialized precepts, and trusts more to that unconstrained moral feeling to the predominance of which it is due that the social intercourse of civilised peoples is superior to the ceremonious meetings of less developed nations. But we must equally admit that with the removal of this curb, social intercourse among the more uneducated classes is freed from all check; clumsy curiosity, intrusive indiscretion of every kind, and the absence of all respect for the inner life of another, make the intercourse of these classes far less dignified than the reserve with which the hospitality of simpler peoples receives the wanderer and provides for his wants without inquiring too precipitately how he is called, whence he comes, and whither he goes. It is becoming more and more rare to find societies in which customs handed down from antiquity with all their traditional circumstantiality and detail, still give to social intercourse a cast of grave and considerate ceremoniousness.

# CHAPTER IV.

## THE ORDER OF EXTERNAL LIFE.

Nature and Culture—Home (*die Heimat*)—The Life of Hunters—Of Shepherds—Permanent Occupation of Land, and Agriculture—Home (*das Haus*)—Family Life—Society—Division of Labour—Callings of Individuals—Simple and Complex Structure of Society—Civilisation—History.

§ 1. WHO is there that amid the thousand cares and perplexities of life has not sometimes asked with a sigh, To what purpose is all this pain and struggle? To what purpose all the conventionalities which at one moment oblige us to useless exertion, and at another impose upon us constraints which are equally irksome? To what purpose all this haste to be rich, since our very organization prevents us from getting enjoyment, except in imagination, from the abundance of overflowing wealth? To what purpose is our sensitive regard to honour when the estimation which others have for us adds, directly at least, so little to our happiness? Why should we not restrict ourselves to the simple, natural wants of existence, and give up struggling after all those things which are but means to other objects more or less remote—objects which themselves, when looked at closely, are of only imaginary worth? In such moods it seems to us that Diogenes in his tub had found the true secret of practical wisdom, and that all the complex culture which surrounds us would do well to abolish itself, and no longer to hinder by the useless constraints of innumerable artificialities the satisfaction of the few wants inseparable from human nature.

And yet it was in vain that Diogenes protested against the civilisation of his age; and all those individuals who since his time have turned their backs upon human culture have only

been able to make their solitude endurable to themselves by knowledge, thought, and reflection which they owe to the very culture which they despise. Opposition to the complexities and details of civilisation has a charm only as long as it remains mere opposition; if mankind by sudden consent were to return to the simplicity of the most natural conditions, without doubt the same mental forces which had brought about this resolution would forthwith be as busy as before in reproducing in turn all the rejected superfluities of civilisation. We may frankly admit that there is very much in the complexity of our present mode of life which is in itself idle and unmeaning, and that, if we were free from certain wants, we should do more wisely and be more happy. But the truth is that we already have these wants, and the mere knowledge that they are not inseparably joined to human nature as a whole does not in the least alter the fact that they are so much the more firmly bound up with that definite type of human nature which is special to us, and which we owe to historical development and to education. We, as we are, should suffer from their non-satisfaction, and the same degree of happiness which men in the natural state could obtain by the use of scanty means is only possible for us through the simultaneous fulfilment of many conditions, or through the conscious and voluntary renunciation of many individual satisfactions. But, on the other hand, a voluntary oblivion of that towards which our hearts are yearning is not in our power; it is only great historical changes of fortune that may sometimes obscure a nation's remembrance of all the complex variety of its demands upon life, and make it capable of being satisfied with the simple and elementary enjoyments of returning barbarism.

Have we, however, a right to speak thus, and to prefer such culture to such barbarism? Seeing that in advanced culture satisfaction is dependent on so many conditions, and that it must involve so much self-denial, is not this condition of culture unhappier than that more natural life, which with greater ease and security reaches its state of equilibrium, and

seems to be exposed only to the inevitable ills of the course of Nature? These are questions, however, which we can easily answer. For the more vividly we represent to ourselves the simplicity of a state of Nature, the more clear does it become not only that it could never suffice to satisfy our souls, but also that those living impulses in us which stand in the way of such satisfaction, have, with all their train of unrest and failure, an unconditional right to be preferred to that contented poverty of mental existence which only seems to us now and then desirable as a break in our own more agitated life. The happiness to which the human soul is destined by no means consists in the mere absence of all disturbances which could hinder those impulses which proceed most directly from Nature, or in the maintenance of favourable conditions, securing to them an uninterrupted and uniform satisfaction; the course of civilisation is not merely a succession of compensatory efforts capable of re-establishing, under less favourable conditions and by the use of more powerful means, a lost equilibrium and a degree of happiness previously possible. On the contrary, by the opposition which the natural course of things offers to a too easy satisfaction of natural impulses; by the labour to which man is compelled, and in the prosecution of which he acquires knowledge of, and power over, things in the most various relations; finally, by misfortune itself and the manifold painful efforts which he has to make under the pressure of the gradually multiplying relations of life: by all this there is both opened before him a wider horizon of varied enjoyment, and also there become clear to him for the first time the inexhaustible significance of moral Ideas which seem to receive an accession of intrinsic worth with every new relation to which their regulating and organizing influence is extended. In the longing for a return to a simpler life there is involved a temporary over-estimation of merely physical wellbeing, and we soon bethink us that a cultured mind possesses far more springs of happiness, the origin of which we cannot trace. Perhaps we should not seriously wish to be without even the suffering entailed by

self-denial. And then there is pain, the bitterness of which is only intelligible by reference to the refined relations of social life, and to the consciousness of combined victory and reconciliation springing from practised ethical insight—pain which gives rise to innumerable feelings not easily expressed, and pervading our whole life like a precious fragrance that we would on no account consent to renounce. Men are much inclined to delude themselves with the hope of combining two incompatible advantages, *i.e.* the simplicity of existence in a state of Nature, and the feelings with which we ourselves regard the external world—we who have been moulded by the influences of science, art, and religion. For we would certainly wish to take with us these feelings when we return to a state of Nature; but we should remember that they are products of a culture which is unthinkable without all that intricate mechanism, the noise and inflexibility of which sometimes disturb us. We can choose only the one or the other; either the simple monotonous harmony of an uneventful life according to Nature, or the full, articulated melody of civilisation, gradually unfolding through many a discord, and no one can doubt that the latter presents the higher beauty, and that civilisation is not a mere roundabout means of attaining under altered conditions the same degree of enjoyment as was tasted in a state of Nature, but that it must, on the contrary, be regarded as a power which for the first time unfolds before us, in all the glory of the perfect flower, the full worth and joy of every moral relation.

On this subject I have now but a few plain remarks to add. I will not here go into the question of the first origin of civilisation, nor endeavour to point out either what definite causes (in the minds of individuals and nations or in external circumstances) aroused and guided the spirit of progress, or what obstacles were put in the way of general or special development either by conditions of life or, more obscurely, by national character; these things will for the most part remain always unknown to us, and as much as we can hope to make clear, we defer to a later historical consideration. It

is just as little my intention to institute here a comparison between the different epochs of civilisation through which mankind have hitherto passed, although such an attempt might admonish us to desirable caution in many respects. For this attempt would in the first place take us back to an observation which we have already made, to the effect that a clear advance in knowledge and power, and in all the external trappings of life, may take place without a simultaneous increase of those things that are good in themselves, for the sake of which all the labour of civilisation is employed. With the advance of civilisation and of its power over the external world there arise everywhere new relations and new sources of enjoyment, but the alteration of social conditions which is bound up with these other changes, unavoidably demolishes many a form of existence handed down from antiquity, to the joy and worth of which only poetry and not real life will ever again find access. Whether this is to be regretted, or whether on the whole in our destiny the good only makes way for the better, is a question the answer to which we can seek only in considering the history of the human race. But the worth of culture in general, as compared with that natural condition which we sometimes describe as a state of innocence and sometimes as barbarism, is not here called in question. And although a sharp line of demarcation dividing the two would only be possible if we could contrast a perfect humanity, hitherto unrealized, with complete brutishness, yet we may emphasize some individual features of social order, on the presence of which the excellence of any culture must depend, and on the more or less completely organized combination of which to a coherent structure is grounded the superiority of one stage of culture over another.

A man wants, in the first place, a home, and possessions, and a sphere of work, so that he may feel he has some definite place assigned to him in the ordered universe; he further wants not merely occasional contact with his fellows, but a lasting community of life with some one person at least, so that he may secure understanding and sympathy for his own nature

and individuality. The family circle, too, requires that beyond its own narrow limits there should stretch a wider social background, by the common opinion, custom, and law of which its own life and effort are regulated, to which it belongs, and by which it is supported and judged; finally, it is in all cases inevitable that the mind of this society should connect its own common life and the existence of every individual with the future and the past by some theory of the earth's history, and should link all terrestrial existence to some still more comprehensive theory of the universe by a common religious belief.

§ 2. Not even beasts rove about altogether homeless over the surface of the earth; even where a wide extent of country everywhere offers them equal means of subsistence, they restrict their wanderings to a limited region, beyond which they are driven only by force or unaccustomed circumstances, and not by their own impulse. It is as though each living soul could only taste rest and happiness when, instead of feeling lost amid the restlessly changing multiplicity of new impressions, it can make the unvarying representation of its own familiar surroundings the centre around which are grouped, in diminishing degrees of clearness, the more distant variety of the outside world. Man's love of adventure, which would otherwise lead him to transgress more easily than beasts these self-imposed limits, is counterbalanced by another and more profound impulse, that of the spirit of acquisition which makes him wish that the results of his activity should not disappear with the crowd of changing objects on which it is expended, but should gradually accumulate in lasting monuments of his labour, and present in visible and connected form the gain acquired by his life's work.

Natural circumstances favour or hinder this inclination in various degrees. Where men as yet without fixed habitation are forced by the great abundance of animal life and the necessity of defending themselves from the attacks of wild beasts to take at first to the hunter's life, the dawn of higher civilisation meets rather with delays and hindrances than

with rapid furtherance. The necessity of following wandering game, substitutes for the idea of a settled abode the wider and vaguer idea of a hunting-ground, and the ease with which the captured prey, after very slight preparation, can be applied to satisfy natural wants, as well as the way in which, in this kind of life, all the fruit of men's efforts is consumed as it were from hand to mouth, without leaving a trace behind, is not conducive to any thought of collecting the results of one's labour so as to make some lasting and coherent monument, or any thought of so arranging life as to connect into some scheme of development men's fitful attempts to trade and accumulate. Cunning patience and passionate fury of attack are the two capacities which this life demands and exercises, in alternation; both are but little calculated to promote higher human civilisation. Only the calm with which the North American Indian listens without interruption to the speech of another, and the passive courage which he shows under suffering, are useful elements, which, from the necessity of quietly enduring countless hardships and mishaps, have been cultivated in the school of this wild life, in which the hunter is early taught to watch with silent self-restraint every movement of the jaguar or buffalo, so as not to betray himself too soon by any disturbance of them. If there were not other ineradicable impulses of human nature impelling individual men to some combination among themselves, there would be little in the character of this mode of life that could lead the homeless hunter to social union and the development of human intercourse; the occupations of all are too uniform for any one to expect that any other should specially complement his own knowledge and capacity.

The pastoral mode of life brings with it conditions somewhat more favourable to development. It cannot altogether dispense with courage and activity, which are needed for the protection of the flocks and herds; but it is based not on destruction but on cultivation of animal life; and this life calls out alongside of a patience which is not sneaking and cowardly but calm and persevering, much forethought and

providence, and leads to a growing variety of wants, and hence to the beginning of a division of labour in a small society of members all helping one another. In place of the sudden alternations between wholly inactive leisure and exhausting effort which are usual with those who lead a hunter's life, there is established a steady succession of occupations each of which reckons upon the rest, and which reciprocally make each other possible; social life takes the place of isolation, and the position in which different persons stand with regard to the property (whether held in common or by individuals) with the management of which all are concerned, calls forth of itself simple differences of social importance. With the possession of this moveable property arise the first elements of two notions which are foreign to the hunter's life, namely rural economy and society. Settlements of some kind, which although not necessarily permanent are yet of some duration, are indispensable; and if the custom of feeding the flocks by letting them graze on natural pastures necessitates a periodical change of abode, still a return to familiar grounds is always preferred to uncertain wanderings into distant localities. Thus life becomes more and more bound up with the region of country which now (for the first time) begins to be a *home*, with the fountains, hills, and woods of which there begins to be linked an ordered remembrance of past events, and which no longer is the mere scene of adventures that have been gone through, but supplies to coherent labour that background and basis of orientation which imagination always requires. But pastoral life in itself does not everywhere produce those fair first fruits of civilisation which we rejoice to see in some examples of it. Partly the nature and capacity of the domesticated animals, the kind of tendance they require, and the degree of their attachment to mankind, partly climatic and social conditions, and finally the incalculable peculiarity of national character modify greatly the degree of development. The pastoral tribes of the polar regions, pressed by the disfavour of Nature, and cut off from contact with a different and more advanced civilisation by wide reaches of country, present a

poverty-stricken picture beside the life of the Semitic patriarchs, in the simple grandeur of which we find distinct traces of commerce and of pretty considerable contact at many points with the culture of stationary tribes. It is not only that the barter of an infant commerce provides the shepherds with products of foreign industry with which they may adorn their life and make it easier—the mere knowledge that beyond their immediate horizon there stirs other human life with other forms and customs, must lift their apprehension above that monotony which with more isolated tribes arises from want of the idea of human society. For indeed this idea is absent even now in cases where a larger association of families repeats each the same mode of life, the same occupation, and the same petty domestic organization.

Even antiquity knew that the real beginning of higher human civilisation, was in all cases to be found in the change from nomad life to permanent settlement, and knew it with a fresher and nearer feeling than is possible for us. This change was a necessary result of the need for procuring means of subsistence from vegetable life, a more fruitful and certain source of supply than the animal world. It is only luxuriant tropical lands that yield such a vegetable supply to a large extent, without any human labour; and in just those regions man would have remained most completely a parasite of his bread-fruit bearing land, if—among populations that were growing numerous and pressing one another on all sides—the impulse to social enjoyments, and many a sensuous desire, flaming up irrepressibly, had not either given rise to some regulation of this communal life, or at least by violent interruptions of such regulation, infused into existence an element of passion. Where these food-bearing plants are scarcer, the spots where they abound mark the abodes of men, who settle down at the foot of the trees, but systematic civilisation is first developed where Nature has made work a necessary forerunner of enjoyment. The benefits which the vegetable kingdom has bestowed upon man in the banana, the bread-fruit tree, the date-palm and the cocoa-nut tree, are

certainly not accepted by him without any thought whatever; and the imagination of the people who live upon the products of these plants is sensitive enough to link with their striking images, in grateful veneration, the dawning poetical reflection of their simple life. But far superior to these incitements is the educative power everywhere exercised by the various occupations involved in the cultivation of cereals. It is his own strength and effort which the tiller of the ground must employ for the satisfaction of his wants; Nature and the soil, with which he deals, neither offer their gifts gratuitously, nor can they be swindled out of them, but they yield them to unceasing and exact industry. The necessary attention to a number of small conditions which all help to secure the result; the indispensableness of a definite succession of occupations which cannot be altered by caprice nor avoided by thoughtless presumption; patience not only in struggling with the weather and the seasons, but also in waiting for the slow maturing of the produce which cannot be accelerated by any greedy haste; and finally the spectacle of the uniformity with which in general the work of natural forces proceeds—all these things teach the mind to feel itself taken up by and involved in a trustworthy, consistent, and complicated system of natural order; and they will not fail to produce even in the most poorly endowed mind a consciousness of the necessity of complete, connected, and systematic means to secure the success of any work, and to show how little a life that proceeds as it were upon the spur of the moment can reckon upon satisfaction and success.

The growing labours of agriculture involve the establishment of permanent settlements, and man now enters for the first time into a relation of manifold opposition to Nature, on which all further progress in civilisation depends. For in fact the powerful tie binding man to the soil, which first strikes one in considering the stationary state, is not the predominant element in this relation, and the nomad who wanders hither and thither has little reason to look down with

scorn upon this tie; on the contrary, he is himself in a state of much greater dependence upon Nature, to the scenery of which he seems to belong almost as much as the flock which he guides or the game which he pursues. It is within the four walls of home that a man begins to enjoy, in his leisure time and secluded from all outward influences, the quiet concentration of family life, and to prepare the mechanical means with which to make fresh excursions into the surrounding world, and to secure and work up its products: these walls of home are a much more powerful means towards freeing him from dependence on the external world than is the fugitive haste of the nomad, who restlessly changes one place for another without finding access to any inner world, except in the quiet interior of his tent in the intervals between his journeys. The walls of home enclose a new realm of human thought and effort; within them rising generations find a fenced and guarded region of existence, filled with memorials of their forefathers, with whose banished forms the life of the present is now for the first time in conscious and unbroken community—the work which they have left behind being added to, altered, and carried on by each generation, which thus makes its own contribution to what went before. But it would be wholly unnecessary to describe the thoughts and feelings which arise in every one at the name of *home*, and which are repeated in all their freshness and fulness whenever there is founded any permanent settlement, intended to become the scene, for an indefinite time, of a succession of human joys, sorrows, hopes, and remembrances, all inextricably bound up with one another. Suffice it to say that in the dawn of civilisation the contrast between Nature and the world of mind appears first, and in its most expressive manifestation, as the contrast between domestic life and the unboundedness of the external world.

Even in our present life, in which the intricate connection of mental interests obscures in many ways our relation to Nature, we may easily observe what an important influence is exercised upon our minds by the visible marks of our efforts

in external works. The artificer who frames a work of his own hands, and whose joy in it is not diminished by any existing social deficiencies, retains almost always a more even and contented humour than the inquirer who lives in a super-sensuous world of merely intellectual interests. It is true that he may be compensated for many a long struggle in the moment when the result of these takes form in artistic completeness; but it is seldom that this result is as certain and complete in itself as the external work which, with all its excellences and defects, is set before our eyes in visible shape and can be fully estimated, and which as it grew beneath our hands gave us, at every step, practical insight into the means of overcoming individual difficulties. So that all the more in the dawn of civilisation (as in the beginning of every individual life) must there be a joyous celebration of the awakening of self-regard as soon as self beholds the first-fruits of its inner thought and effort embodied in the form of a finished work of its own creation. Every tool or utensil that a man has constructed bears for him the stamp of some thought of his own, and it represents to him at the same time, the future service which it will render, and the power with which his own mind is now armed, for influencing the external world—that mind having now a stronger and a wider grasp than when it had only the aid furnished by his own bodily organization. This profound need of seeing our own life reflected in surroundings which have been transformed by ourselves, governs us always. Not only must house and home present to us the traces of past activity, and the instruments of that which is to come; but even where more spiritual interests are concerned, to which no spatial phænomenon can adequately correspond, we like to be able at least to point out some definite spot as the centre from which any particular human activity is used to radiate. It is true that God is near us everywhere, but every civilisation in its earliest dawn founds local and permanent sanctuaries and altars, and men will only adopt, as their special place of prayer, those spots which they feel have been made sacred by the prayers of their forefathers and the common devotion of

their contemporaries. It is not merely the pressing necessity of maintaining life which leads to the establishment of permanent settlements; but when a man gets a home, he seems to take as it were spiritual possession also of his whole surroundings, or perhaps we might better say that it is then that spiritual life receives local manifestation.

§ 3. With the establishment of a steady centre and circle of work a prosperous development of other moral relations first becomes practicable. It is hardly possible that in the wild life which hunters lead the intercourse of the two sexes should attain a higher significance than that which as a matter of fact it actually does reach. Constant participation in the efforts of the man is by Nature made impossible for the woman, and if it were possible it would still be a partnership which would afford to the diverse mental natures of both very little opportunity for the development of their special characteristics. Under such conditions masculine strength cannot find in the woman's mind any essential complement of its own insufficiency, because the life is so poor, and furnishes so few circumstances which are of emotional value, and in which both have a common interest; moreover, in consequence of the lack of property to be looked after, there is too little community of labour and of solicitude. The other family relations also suffer from this absence of a common aim in life. Among beasts we see the young lives environed by a parental love which is capable of self-sacrifice, but which suddenly cools when the need of help in the young diminishes; and just in the same way men in a state of Nature afford striking examples of the self-sacrifice of parents for their children, but we also see how easily, with them, this connection is dissolved, when the children have attained bodily maturity. In fact where one generation never takes up and continues the work of that which preceded it, but each one, as though isolated and beginning afresh for itself, turns to universal Nature, in order to obtain the satisfaction of its wants in traditional modes, it is plain that there cannot be that intimate communion of souls having common interests in life and yet individually different charac-

ters and different imaginative bents, and that community and at the same time that conflict of wishes, hopes, and fears, by which in the civilised world there is developed from the natural bonds of kinship a moral community of hearts. It has been often observed how easily and painlessly the North American Indian can bid his parents a last good-bye; and by man in his natural state the relation between brother and sister is felt to have even less—much less—significance and beauty than that between parent and child.

I might go on to pastoral life, and extol in it the higher meaning which men now feel in family ties—the freer condition of women, who from being the slaves of men have been raised to be their companions—the pleasure which is taken in carrying on genealogical tables, by the unbroken coherence of which each individual member of a society which has grown up by degrees is assured of his connection with ancestors whose names have been made illustrious by well-preserved traditions of glorious events and deeds. But the fact is that these fair beginnings of culture are found only among a few favoured races, and especially in that Semitic past which we are accustomed to regard as a mirror of the purest and most primitive human development. They are found much attenuated and accompanied by far less depth of feeling in the warlike shepherd tribes which still enliven the wildernesses and steppes of the old world, and they almost disappear in the unpoetic savagery of the polar races. A more comprehensive ethnographical comparison than we can here attempt would make it clearer to us that the degree of cultivation attained is by no means wholly dependent on the particular modes of life which we are here considering; and on the other hand would show how strikingly the unexplained differences of mental endowment which distinguish individual races of men lead to divergence in their course of development, under conditions which are in all other respects similar. More than this, much which we should be inclined to regard as the almost immediate effect of a mode of life determined by external circumstances, is perhaps the echo of some extinct

civilisation, or a reflection from some other civilisation existing elsewhere, into fruitful relations with which the historical course of events has brought some tribe which has apparently developed in isolation. Historical consideration may distinguish if it can the separate influences of these coefficient factors; but if we are merely concerned to estimate the ethical importance of modes of life on which modern civilisation is built, we shall not doubt that permanent settlements, and the sphere of work which first establishes itself in house and home, form the firm basis of consolidated family life, and indirectly through this of wider social order also. It is not, indeed, possible in the nature of events, nor is it an imperative necessity of human nature, that clans gradually increasing in number should permanently continue to inhabit that native land of their forefathers in which they themselves were born, or that the bonds of relationship which link a numerous posterity both to one another and to their ancestors, should be held in distinct and present remembrance to degrees of indefinite remoteness. Grandparents and grandchildren are held together by a strong natural bond, but when we get beyond the third generation (and similarly with the wide extension of kinship by marriage) these feelings of blood-relationship cool down rapidly into the mere general interest which men take in their fellow-men or fellow-countrymen. This does not, however, destroy the charm that we shall always find in being able to look back through centuries of successive generations of which we know ourselves to be the latest representatives; but as such tradition is only made possible by the existence of cultured feelings of considerable strength, so its value must consist either in the consciousness of some transmitted historical work which has to be carried on, or in reflection on the connection of human destinies which may here be followed clearly along a single continuous chain, whilst universal history in its consideration of the whole human race, loses sight of individual threads. It is but few who can take such a retrospect, and to whom is granted the happiness of lingering in an old ancestral home and among memorials of their fore-

fathers; for most, their parents' temporary home takes the place of an inherited estate. But even to such a paternal home fancy gladly looks back from amid the storms of later life, and after the dispersion of the family, when the difficulty which its members find in keeping up an acquaintance with each other's various pursuits and courses in life has weakened the feeling of connection between them, the yearning with which they look back to the past and deeply-felt happiness of domestic union bears witness to the worth which a settled establishment of families possesses even in our own civilised condition. This dispersion itself is, however, made less painful by the ever-increasing importance of society, which, in proportion as its internal structure becomes more elaborate and complete, gives rise to an increased number of other ethical relations between individuals—relations which are of as great worth as the ties of kinship, and, in some cases, of still greater. But it hardly needs showing that the moral strength of these social relations is itself rooted in the soil of domestic family life, and that every career, though its orbit may be apparently eccentric, really revolves about this centre, and derives its human worth from the fact that it had its origin in that life, and will find in it its consummation, or that at any rate it works for a community which is founded upon such life.

§ 4. If the natural course of things did not, setting out from a single original pair, produce a growing society, or if it did not, in the present condition of the world, place every one at the beginning of his life in the midst of an already existing *society*, each individual pair would have to long in vain for the help which such a living background of life can afford towards the full development of humanity and the satisfaction of all the wants of men's souls. I do not doubt that the smallest cottage is large enough for happy lovers; but we may be certain that without the remembrance of a society, the cultivating influence of which they experienced before their isolation, and without any return to this living circle, the happiness of their love would not be essentially greater than

that which falls to the lot of the forest Indians, who, going about in melancholy couples, ungregarious and dumb, search for and partake together the means of satisfying their wants. The drama of life is too tame when it is played by only two persons; they want, at least, the chorus to keep them in mind of the inexhaustible fulness of human interests, of which only a small portion can be brought into consciousness by their own relations to one another. Men and women cannot be satisfied by the solitary companionship of one other human being; they wish to observe his attitude to some third person, and to know that he also observes theirs; finally, they wish that the reciprocal influence of themselves and their companion should be seen and recognised by other intelligent beings; for to enjoy without other people's knowing anything about it is not much better than to be non-existent. This need of others' recognition runs through our whole life; even the most modest love does not wish to hide its joy for ever, he who has a friend desires to show his pride in him before the world, and the praise which we receive from another does not please us so much as the consciousness of being honoured by it in the eyes of some third person; all artistic effort demands recognition, and the most unselfishly devoted scientific labour carried on in self-absorbed isolation from the world of contemporaries secretly reckons upon the generations to come and their appreciation. Finally, it is not without cause that men's favourite topic of conversation in all ages has been their fellow-men; for it is a fact that everything else in heaven and earth is of less immediate interest than the doings of men, in observing, investigating, praising, and blaming which we can best become conscious of our own advantages, deficiencies, efforts, and ends.

Now, as long as the mode of life of any considerable society causes complete uniformity of the aims and occupations of all, this mutual interest and sympathy cannot unfold its whole educative force. It is fixed settlements and the many occupations made necessary by agriculture which first lead to a growing variety of callings in life, and the whole nature of a man is pervaded and influenced by the particular spirit of

his calling, without its suppressing those human qualities common to all. In this there is a double advantage. On the one hand, any life-work which is chosen to the exclusion of every other, not only requires a thorough acquaintance with the objects about which it is concerned, and produces great habitual exactness and systematic technical consistency in the treatment of them, but it also introduces the worker to a manageable and coherent circle of thought, within which universal truths stand out with the more convincing force in proportion as the examples which illustrate them intelligibly and clearly are more special to, and as it were inherent in, the particular occupation at which the worker is employed day by day. In order to appreciate the truth of this, we need only recollect the store of proverbs and proverbial sayings in which all nations are accustomed to treasure up the practical wisdom of experience; the most expressive of them show that the general truth which they contain has been abstracted, within the sphere of some definite calling, from particular examples occurring there, and there alone. On the other hand, every calling gives a special cast to the mind, a particular bent to the imagination, distinctive standpoints and modes of criticism to philosophic views—and it gives to the emotions and to the whole mental attitude of a man a harmonious and distinctive stamp; consequently every one is now an object of greater interest to others. When we are absorbed in the study of a character thus strange to us and so different from our own, beside the innumerable individual traits which arouse our sympathy, that which is common to human nature stands out so much the clearer, and our moral horizon becomes enlarged when we cease to think that we are justified in regarding our own special fashion of existence as the only one that is conceivable, or the only one that is praiseworthy. But as the opening of the Odyssey emphasizes what our modern passion for travel confirms—namely, the value of learning to know the cities and the modes of thought of many men—this aspect of the educative influence of society needs no further proofs. We will, on the contrary,

glance at the dangers entailed by the ever-increasing variety of ways of life and the acquaintance of each with the others.

We need only refer in the briefest way to that narrowness of thought and bluntness of sensibility for essentially human interests which may be caused by restriction to some monotonous groove of occupation. But the coexistence and neighbourhood of different modes of life has disadvantages too, as well as advantages. The more uniform the occupations of a large society are, the more easily is there formed, as a standard for all actions, a fixed rule of custom, from which nothing is exempt; as long as this remains unshaken, it reduces the individual to little more than a mere sample of some typical national civilisation, at the same time, however, securing him from the misery of doubt and of moral instability. But where civilisation has produced greater division of labour and greater variety of life, especially where, in consequence of historical conflicts, there is a mixture of the kindred civilisations of different peoples, a confusing multiplicity of possible modes of existence is presented to the mind; the influence of this is, on the one hand, powerful in raising the intellect above the narrowness of transmitted prejudices; but on the other hand, it is equally powerful in disturbing the stability and security of all moral restraints. For this reason the numerous amalgamations of different nations which have happened in the course of history are from some points of view the most interesting epochs of human development. When any established and harmonious civilisation has been broken up, the imagination of men is given back to unrule; and yet strongly stirred by the influences of the past, it moves among the ruins full of haunting thoughts, loosed from all constraint, eagerly investigating in every direction, and inclined, from the lack of mental equilibrium, to splendid extravagances. Such times may, indeed, bring forth products in which there is more richness and variety and more of the fire of genius than there is generally even in the prime of any civilisation which has attained stable equilibrium, and is faithful to its ideal; but we must also remember that such times are fated to

sink down into a state which is a mixture of genuine barbarism and isolated unnatural moral exaggerations. We see this morally dissolving force in the present day in all those abodes of men in which there is continual contact between strongly contrasted civilisations. It was long ago remarked, and with justice, that in the East weak minds must be very confusingly affected by the sight of so many different races who, some white and some black, some proud of their freedom, others servile slaves, pray in one place to these gods and in another place to those; who in some cases are faithful to the marriage tie, in others enjoy the pleasures of polygamy. Everything seems to be permitted—all seem happy in their own fashion, and there falls no bolt from heaven to pronounce judgment amid this chaos of opinions.

To pass from a national habit of life to a more self-conscious condition of humanity, civilisation must run this risk of scepticism, and history continually renews its efforts to increase the reciprocal influence of different divisions of the human race. It is seldom that individuals or nations are induced to wander far by want of the simplest and most natural means of subsistence; they are led to do so more often by a restless adventurous impulse, most often of all by a desire for objects of which the direct worth for human nature is but unimportant, and which partly charm the senses and the love of novelty, and partly acquire through habit, as civilisation advances, the character of imperative necessities of life. We find that even in ancient times poets and moralists spoke of the insatiableness of men which, urged by a thousand artificial wants, transcends all natural limits, and brings into a life that might pass simply and peaceably the danger and unrest of far-reaching undertakings. How much might be added to such complaints in these days! For now there is no department of Nature which does not attract men to infinite labour by its productions. In the mineral world, gold and precious stones, iron, brimstone, and coal have tempted them, and have led to the discovery of new countries and to a development of industry to which are due the birth and extended influence

of innumerable other human activities. The vegetable kingdom by its edible products early gave an impulse to commerce, but the interested spirit of enterprise has been called out in much larger measure by sugar, coffee, tea, and the numerous spices which people could do without as long as they had not had them. Finally, in the animal kingdom, the whale and the furs of the Arctic quadrupeds have attracted courageous and enterprising spirits to the inhospitable polar regions, and the web spun by the insignificant silk-worm early led to commerce between civilised nations. The boundless influence exercised by all these circumstances on the development of human capacities is too well known in our own time to need more than a passing mention. A life which could have been contented with the satisfaction of its primary natural wants, would have found little stimulus to further development; while, on the other hand, luxuries that men might have done without have caused all physical and mental powers to be exerted to the utmost, and as there has been a continuous increase in the degree of exertion necessary to ensure the hope of success, science has grown great in this ministry, and in it the constructive imagination of men has found inexhaustible occupation, and moral courage has encountered innumerable opportunities of proving its worth in new and peculiar circumstances.

§ 5. We have so far considered culture only with reference to the good things of life which it produces and offers to individuals; the further it advances the more does it require likewise fixed external rules of individual conduct, and a definite system of administration securing the greatest amount of general satisfaction that is rendered possible by the existing or attainable means of enjoyment. A society, with the customs and rules which have grown up naturally, becomes transformed into a *State*, which has to take the living moral Ideas existing in the mind of the society and, scientifically and with conscious calculation, to work them as governing principles into the details of present circumstances; likewise to present to the mind of each, as a systematic whole, with the

clear stamp of objective reality, that spiritual organism of which he is a member. This is not the place for describing an ideal of political order, a task to which we shall not return till the end of our considerations; but we must here briefly notice the necessity of following such an ideal with more or less success, and the inevitable relations with it into which each living individual must enter in the natural course of things. We shall find that there are two struggles perpetually going on, one between subjective self-will in general and the obligation of an objective order, the other between the wants of the individual and the mechanism of ordered political life by which these wants are not all satisfied.

Coeval with all the political organizations of the world are the hardships inflicted by their institutions on individual members of the community; hardships which are blameworthy in all cases where merit and struggling capacity are by law denied room for development and the opportunity of winning a congenial position in life, excusable in cases where the political organization, while making all careers accessible to all, does not at the same time remove those hindrances to entering upon them which proceed partly from external circumstances, partly from human nature and its weaknesses and evil inclinations. We shall have special occasion, at a later stage, to consider these partly evitable and partly inevitable deficiencies of human arrangements; we only refer to them here in as far as they may awaken doubts of the general beneficence of civilisation, and excite the desire for a return to the simplicity of a state of Nature. There can of course be no question that the ever-increasing refinement of life does not benefit all in equal measure, that a full enjoyment of the physical and mental advantages of civilisation is the lot of only a favoured few, and that on the other hand in all ages a large fraction of mankind remains far below the level of attainable culture and far removed from its enjoyments. But this only makes it all the more erroneous to imagine that while culture raises the more favoured ones, it inevitably diminishes the measure of enjoyment of all the rest to a less

amount than might be possible for them if all the trammels of a complex social order were to fall away. A sufferer, wounded in spirit, forgets in his pain very many benefits which he owes to this order, and which because they do not assume the tangible form of some private possession are as easily overlooked as the presence of the atmosphere that unobtrusively surrounds us and makes respiration possible; he forgets the security of his person, the legal protection which is accorded to his claims, the possibilities of culture which are open to him, the use which he makes (and indeed the very existence) of various ready-made paths in which he may endeavour to employ his powers in a way advantageous to himself. He forgets that all this, as well as his very knowledge of most of the good things which are denied him, is only made possible by the civilisation which he blames, and that on the other hand the simple state of Nature for which he yearns could not secure to a numerous population in most climates anything like the same satisfaction of its wants as civilisation affords—indeed, there are but very few climates where it could even do this approximately and for a time. The evils of poverty and misery which we so often see in close proximity and saddening contrast to the growing splendour of wealth, should no doubt stir up earnest efforts for the improvement of social arrangements, but they do not invalidate the assertion that every man who is a member—though only in a subordinate and unfavourable position—of a civilised society, has, unless hindered by his own fault, not only participation in an infinitely richer mental life than would have been accessible to him as a result of his own isolated strength, but also possesses greater possibilities of material wellbeing.

To the consideration of the other conflict—that which we mentioned first—we will also devote just a few words. The pressure which is imposed on the individual in the interests of universal order, the limits which it sets to his humours, fancies, and passions, naturally causes in him a counter-current of effort, and he seeks either to escape from this condition of

constraint, or—where that is not possible—to abolish or change the order itself which is the cause of the constraint. Society will feel justified in attempting to do the last when it suffers as a whole from those of its institutions which have become unsuitable. And to wish to maintain an established order in opposition to the needs of the whole community, for the satisfaction of which it exists, is but a mere empty devotion to forms. This established order, however, may not only stand opposed to the individual as authoritatively restraining his personal desires, it can also, in a moral point of view, not be so completely subject to the arbitrary will of the community as if it had been the result of arbitrary convention. The statutes of a society which has come together of its own accord may indeed be regarded as binding by conscientious members, but no one regards them as sacred; indeed, their being looked upon as binding, and the observance of fidelity and faith with regard to them, seem to me to be possible only in a civilised society which has previously become accustomed to reverence a binding moral order which is independent of its own arbitrary will. A great political community is thus, to a large extent, everywhere a work of Nature, or rather not of mere Nature, but of a Moral Order which is independent of the individual, and the commands of which occur to men when they are living together in a life of social communion. It rests on the one hand on a pious regard for the work which our forefathers have begun, whether it is human labour or the development of humanity; on the other hand, on provident love for our descendants, since we wish to preserve for them that which we have inherited and to transmit it to them with interest. A humanity which aimed at forgetting completely both past and future and at making all the arrangements of life subordinate merely to present satisfaction, would be distinguished from the beasts by nothing except a better choice of means. Therefore, although there is no question that the mechanism of civilised order exists for the sake of society, and not society for the sake of it, yet society is not to be considered as the

mere sum of all the individuals of which at any given moment it is composed. Even in the improbable case of all the members without a single exception agreeing with one another, yet even then these coexisting members would not constitute the community which from a moral point of view is entitled to decide with supreme authority on all the forms of its own constitution; we must reckon as indispensable members of such a community both the generations that are past and those which are still hidden in the lap of the future. A man cannot be truly called a citizen of a state or of the world, unless he feels himself included in this unbroken chain of the temporal development of humanity, endowed with innumerable benefits won for him by past generations, and hence bound body and soul to this historical whole, without which his own existence would be unthinkable, and whose unfinished work he is called upon to develop further by his own activity and intelligence. Something of this feeling has stirred men in all ages, but a consideration of history will teach us how seldom the one-sided attachment to what is old and the blind and passionate love of innovation have consciously joined for the carrying on of this work of true development, and how much oftener it has been left for the unconscious and pressing necessity of circumstances to work out by degrees the progress that human wills had refused or had in vain attempted to carry on.

# CHAPTER V.

## THE INNER LIFE.

Doubts concerning the Ends and Aims of Human Life—Man as a Transitory Natural Product—Spontaneous Judgments, and Reflections upon them—Connections with the Supersensuous World—Superstition—Religiousness—Unsteadiness and Incoherence of Human Effort.

§ 1. THE more complex and multiform the external order of life is, the more pressing becomes the question, What is the kernel of this hull, and what is the clear gain which men are to purchase at the cost of their life's labour? It is not asked only by those whose unfavourable position in the midst of a complex civilisation forces them to a long struggle for existence and to a continuous series of efforts in which every success only brings an immediate necessity for fresh labour, and hardly affords the hope, even in the far distance, of at last reaching a secure position. It is asked just as often by those who enjoy all the good things of life without having to take any trouble about winning and establishing their footing in society; to them, too, it often seems as though there were no objects and aims of existence except such as men arbitrarily choose to set before themselves — as though nothing could stir the soul except the passion of a struggle for something yet unattained, whilst any good that one has succeeded in winning seems to melt into thin air, and the tension of effort being relaxed there remain in its place a tedium and lassitude which seem to seek in vain for some new object that will not lose all charm in the moment of attainment. There are indeed some lots more favoured—lots in which spells of hard work and joyous holidays, labour and compensating enjoyment, are fairly mixed; but even from the peaceful content of such lives men are rudely

roused by the doubts which are stirred in them, both by the injustice of Nature and by a consideration of history. The comfort that can be derived from a comprehensive consideration of human destinies and the traces of divine guidance in the history of mankind, is not within the reach of the majority; within the range that is accessible to them it is, generally speaking, only a soul that has already attained peace that can grasp the wide harmonies in which all lesser discords are lost. It is not always in the power of honest endeavour to struggle upwards to a satisfactory position in life, and even if we were to allow that no misfortune happened without some error on the part of him who suffers from it, still this admission would soften but little the bitterness which we feel at seeing incomparably greater faults repaid by the undeserved favour of circumstances. And then, finally, how many hopes are dashed to the ground by sickness and by death! How many souls appear on the stage of this earthly life only to quit it again forthwith without end or aim—without bringing forth any fruit of development in their brief existence! And if we take a survey of the fates of human beings as far as our own experience goes, what do we see but a perpetual repetition of the same labours and sorrows, the same misunderstandings and perversities, differing only in external accessories, and everywhere brightened only by the same isolated lights of transitory enjoyment? How great is the number of the hours and days which are spent in works and labours which we should never have undertaken except in the hope of a result which would more than counterbalance them; and how few are the moments in which it seems to us that we have really lived, and not been merely busied with preparations for living! There is scarcely a soul which is altogether free from reflections of this sort, although—very fortunately for mankind—they are in most men extremely transitory, being displaced by cheerfulness of temper or deliberately put aside—and the heart is thus enabled to surrender itself to the attraction of all the little charms of life, and to be satisfied with them for the moment. It is even as the old saying declares, We

know not whence we come nor whither we go; the wonder is that we can be as light-hearted as we are.

The short survey of human existence which we have been attempting as a preparation for the consideration of its historical development, can hardly aim at concluding with an answer to these pregnant questions. But the very fact that such questions are raised, and that men, with hope and doubt, with faith and vivid fancies, look for ends and aims of their existence, that they feel themselves to be in constant connection with a supersensuous world and by their very efforts to suppress the feeling only bear witness to its obstinate vitality—all these reflections and emotions (as well as the external order of society and even more emphatically than it) must be reckoned among the decisive facts which raise humanity far above any psychical development of which the inferior animals are capable. It is true that among some species of animals, the reciprocal action of their psychical mechanism and physical organization leads to an established order of social life; but whilst in these animal polities a predetermined order, fixed in every detail, combines the actions of all the members to an ever uniform whole, it is among mankind alone that with the question, What are we, and to what are we destined? there first breaks the dawn of a genuine inner life, for the development and enriching of which all our expenditure of external activity seems designed. The views of life which attempts at answering these questions have produced in the human mind at all periods, will form our topic for the rest of this chapter.

§ 2. There are scarcely any theoretic convictions that are more severely tried by comparison with experience than the opinions which we frame concerning our own human nature and destiny. In the quiet presence-chamber of speculative thought, it is what is good and noble and significant in human life that stands out as if it were the whole, and all the dross being refined away, the image of man is insensibly glorified into an ideal form which not only fits harmoniously into its place in the intelligible whole of universal order, but merits

a place so prominent that it seems hardly possible to describe worthily the significance of its destiny and the profound importance of its position in the world. This reverent conception of humanity receives a rough shock where we come into contact with its average individual representatives. We do indeed find everywhere the general physical and mental capacities with which man is endowed for the accomplishment of his high destiny, but so little are these capacities consecrated to the service of that destiny, that love of the race and contempt for the individual are but too often found to be compatible. The last may perhaps be modified by a fair consideration of those seeds of good which we may always find even in perverted human nature; but the impression which we receive on the whole from these everyday experiences should make us critical of that over-estimation of human worth which has become so familiar to our anthropological reflection, and which in truth corresponds but ill with the far more modest judgment which men mete out to themselves in their unsophisticated daily thought. In the same way that terrestrial Nature has been regarded as the only phænomenal world in which the wealth of the Creative Substance has been manifested, has it been quite common for philosophy to regard man as the isolated apex of this phænomenal world, and to imagine that there was nothing between him and God except a yawning chasm, the blank emptiness of which could offer no great hindrance to our leaping across it. He who will only trust to the most direct experience, a kind of experience which presents us with nothing that is supersensuous and shows man as supreme in the world of sense, is right from a certain point of view. But he who once permits his imagination to stray beyond the boundaries of the sensible world is wrong if he does not at the same time admit the possible boundlessness of the supersensuous realm, but tries instead to put that which is highest in the known world of sense into the position of next neighbour to the keystone of the universe. It is not our business to fill up that wide expanse with dreams more or less daring and more or less uncertain; but

we must say that we regard as worthless any theory which—vainly imagining that it has, by some dialectic method, possessed itself of the equation to the curve which represents the law of universal development—thinks to demonstrate that the human mind is the crown and end of that which can know no end—that human life and existence are the last link in the great chain of self-developing Infinity. Let us give up the presumptuous attempt to extract from such supposed certainty of the high position which we occupy in the scale of creation, the secret of our being, of our hopes and our destiny; let us rather set out with the admission that we are a feeble folk, often wearing out our hearts with doubt, bare of counsel and of aid, and feeling nothing so keenly as the uncertainty of our origin, of our fate, and of our aims

The same exalted and solemn light in which the concept of humanity appears to the eye of speculation, illumines with still more striking brightness the calm figures of primitive men as tradition shows them to us at the beginning of history, wandering over the still youthful earth within the precincts of Paradise or in patriarchal simplicity. How quickly the glory of this picture too is changed when we glance at the countless swarm to which mankind have multiplied since then! In this noise and hurly-burly of most prosaic reality, how hard it is for the imagination to retain the impression which is so naturally produced by the contemplation of that little community of the early world which we know so well, and the poetic largeness of its simple modes of life! We are only expressing a feeling which must be familiar to all when we recall the humiliating and confusing effect exercised upon us by a concrete consideration of the unmeasurable multitude of mankind, amid the throng of whom our own individuality seems to be swallowed up. It is not perhaps the entirely solitary man who feels that God is close to him, and that he is guarded and sheltered by direct divine interposition, but it is likely that this happiness will be experienced by one who, while involved in the sacred community of family life, feels that all the significant relations of

soul to soul which grow out of this community are interwoven with his own inner life, and is not disturbed by any thought of the thousandfold repetition in every corner of the globe which makes this significant harmony of existence seem a mere ordinary everyday occurrence in the course of events. As our hearts are not large enough to embrace all with equally active affection, so do we shun the idea of sharing with a countless number of other persons our own relation to the Infinite, and it seems to us that the strength of the tie, and indeed our very assurance of its reality, decrease in proportion to the increase of the numbers to which it is extended. The more mankind emerges from the retirement of patriarchal life, and becomes conscious of the inexhaustible fertility with which, from time immemorial, the earth has produced one race of men after another, differing greatly in external form and mental endowments, and yet all alike in essentials, indeed all in the mode and conditions of their life resembling to some extent those races of beasts which in still greater multitudes inhabit the most remote corners of the earth, and which arise and pass away in shoals—the more vividly all this is present to consciousness, the less ready will men be to enter on a consideration of the worth of their own existence, and their mind will be gradually possessed by a belief that mankind is but one of the transitory phænomena which an eternal primitive force, revelling in the work of alternate creation and destruction, brings forth, only that it may vanish in its turn.

In saying this I do not intend to suggest that at any period of history this view has been predominant among men, although it might in fact be recognised as giving the key-note of thought at various epochs. I would rather point it out as a view that may be met with in all ages, never perhaps as an unquestioned faith, but rather as a widespread feeling that casts its shadow effectively enough over all human effort. Indeed, this mean opinion of themselves which men hold, appears in a twofold aspect. In the first place, it appears without being sharpened and developed by far-reaching

reflection, as a direct consciousness of their own lowness and commonness, in the vast number of those who, confined by the disfavour of circumstances to a narrow circle of thought and compelled to a daily struggle with petty hindrances, can only be said to endure life as a burden imposed upon them. Familiar with the aspect of misery, they know how men are ignominiously reaped down in shoals by the course of Nature, whilst to him who is more happily placed the infrequent spectacle of dissolution has at least the comforting and elevating solemnity of an event which is out of the common. All the dark shadows of life, all the hardships inflicted by the ordinary course of events, stand out in naked prominence in their daily experience, and produce that passive resignation with which in all ages the bulk of the human race endures life and death. They do not live their life but they tolerate it from its beginning to its end, having no comprehensive aims, and only intent upon warding off in detail immediate ill, and winning in detail proximate small advantages; in the same way they tolerate death as a necessity which it would be hardly worth while to escape for the sake of continuing such a life as theirs; for although they may remember some isolated enjoyments, they would hardly find that life held for them any great and permanent treasure of delight which they would feel impelled to try and secure from destruction. The same power that helps us over so many dark and fathomless chasms in life softens also the gloomy colouring of this mood of thought—I allude to the thoughtless forgetfulness with which the human soul entertains in close conjunction the most diverse opinions, never bringing them into clear contrast—a thoughtlessness which enables us to give ourselves up fully and entirely to the passing pleasure of the moment, although we entertain such a poor opinion of the worth of our life on the whole.

That which we have here been considering as spontaneous feeling, and an ordinary accompaniment of existence, reappears refined by reflection and intensified to explicit belief in countless varied forms of theoretic conviction which for the present

we will not attempt to investigate further. There can have been no period in which there did not exist views according to which human life was regarded as a passing wave thrown up by an unknown ocean in its continuous movement; but all these views, with the slight worth which they attribute to the individual as a mere mortal and vanishing phænomenon, have only exercised a noticeable influence upon life itself in cases where they have been the living outcome of that natural turn of mind which we have been describing, the causes and consequences of which were by these views brought into clear consciousness. But where this spontaneous feeling has been other and better, where minds have been stirred by the large interests of culture and civilisation, and have been admitted, by favourable circumstances of nurture and education, to a living participation in those interests—in all such cases living life has been stronger than the pantheistic and materialistic views developed in opposition to it by reflection or scholasticism, and men have in reality lived and felt and striven after another fashion than that set down in their own theories concerning themselves.

I know that this will be denied, and that it will be maintained that all moral greatness and purity of life can be logically combined with a faith that does in fact in perfect honesty deny the existence of a supernatural order of things, our connection therewith, and the continuance of our existence beyond the limits of earthly life. I admit the fact of this combination, but not its logical consistency; on the contrary, it is that very inconsistency of our nature which so often saves us from being perverted by our theoretic errors, which makes it possible for us to combine action accordant with a sense of the dignity of humanity with views the logical effect of which would be to annihilate that dignity, and this in a fashion which, as it seems to me, is wholly contradictory. It is asserted that the obligation of the Moral Law is not altered if we regard all mental life as merely so much mechanical action of matter and its accidental combinations, having no higher end than to persist, and to fluctuate hither and thither for as long

a period as is made necessary by the collocation of the material particles; in this assertion, however, there certainly is, not a logical connection of thought, but a forcible moral resolve that has determined to hold fast by a reverence for morality, spite of the materialistic theory with which it is incompatible. It will perhaps be attempted to substitute, for a supersensuous mysterious world which is to us the source of the obligation of moral commands, the Dignity of Man and a Self-respect which isolates him from dependence on any superior, yet enjoins him to rule and keep in check the lower nature in himself. I doubt, however, if a view which recognises only a mechanical course of Nature can logically do anything with such ideas as those of reverence and so forth but reckon them among the morbid productions of imagination to which nothing real corresponds, and of which it has already learnt to reject so many. I doubt further whether a view which regards the individual as merely a passing phase in the spontaneous activity of an Infinite Substance, could have any logical reason for attributing to such a nonentity any obligation to maintain a dignity belonging to it in its individual and transitory character — a dignity which it should or could maintain by its own spontaneous activity —whether such dignity ought not much rather to have its presence or absence laid to the account of the Infinite Substance itself. The logical outcome of all such views can only be to let ourselves go as Nature prompts, and to use that mysterious sparkle of independent substantiality which shines within us, with what wisdom we may, for the attaining and enhancing of physical wellbeing. Thus moral commands could only be accepted as maxims of action on account of the secondary consideration that they are useful on the whole.

Meanwhile it is not possible, nor is it our intention, to discuss in this place the question whether these different views of the supersensuous world are intrinsically right or wrong; our intention has merely been to refer to them in as far as they are to be reckoned among the ordinary factors of human development. And here we must repeat that we

doubt whether any one of these views which regard human beings as altogether dependent and transitory has ever become a really pervading sentiment of the whole nature, in spontaneous thought and action, as well as in reflection. When an ancient poet, having scouted all ideas of deities and retribution after death as useless terrors by which the smooth and peaceful course of our natural pleasure in life is disturbed, turns upon us and inveighs against the fear of death, and asks, Do we, insatiable, desire to go on feasting for ever, and never to retire with dignity, as satisfied guests, from the banquet of life? the effect produced is no doubt striking. But in asking this, does he not forget that monitions to moderation and dignity must fall very flat on the ear of him who knows that in an hour he will cease to be? Or, in using this simile, which is quite out of keeping with his general tenor, is he not perchance secretly influenced by the truer thought that this life is indeed a banquet from which, as guests who have had enough, we must depart; but that we, not so transitory, depart from it only to enter another state of existence in which there will remain to us the memory of what we have before enjoyed? And on the other side, what poetic and glowing expression has often been given to pantheistic views! But whilst they extol with devotional rapture the absorption of the individual in the universal, is not that which they are glorifying just the abiding and enduring joy which the mortal experiences in its reunion with the eternal? And do they not hereby assert the immortality of that mortal, which, though destined to extinction, is only destined to such an extinction as signifies its eternal preservation in some form or other? This thought, which pantheistic poetry cannot escape, is one which cannot be got rid of either by the most prosaic reasoning or the most commonplace views. People may seem to be as thoroughly convinced as you will of their own impending annihilation, and may speak of the disappearance of personal existence in the lap of universal Nature, and one may indeed imagine that that which used to happen may cease to happen, but one can never imagine that anything which has once existed

can cease to be. And however much people may attempt to persuade themselves that the self-conscious Ego is in fact only an event, a vanishing passage between atoms variously moved, still the immediate consciousness of our personal reality will always remain invincible to these attempts, and we can never think of ourselves as melting away in the great receptacle of universal Nature without thinking too that we shall still be preserved and go on existing in it in our dissolved condition.

I must repeat that I am not setting up these modes of thought as true, but am describing them as facts of our unsophisticated consciousness; they may be right or wrong, but at any rate they are what we go through life with; our reflections are never quite free from a presentiment of something supersensuous. On the other hand, we are not in a position to raise these presentiments to a condition of unquestioned authority, except by a summary act of faith; it is the natural condition of man to fluctuate between the consciousness of an eternal destiny and the ever-recurring dread of being a mere indifferent and perishing production of the general course of Nature, both feelings being toned down by thoughtless light-heartedness. And even that apathetic mood of the majority which I have described is broken by suggestions of such presentiments, and the monitions of conscience make it plain to them now and again that they are not altogether like the grass of the field and the perishing productions of the vegetable world; and conversely the security of the most earnest conviction of the eternal significance of man's spirit is shaken by the unmistakeable and peremptory clearness with which the course of Nature seems to declare that no other fate can await the living mind than the fate of sharing in that destruction which befalls the living form, and of disappearing from the world of realities without leaving a trace behind.

If we stay to consider for a moment that philosophic view of which the dominant characteristic is a vivid consciousness of human meanness and transitoriness, we see plainly that it is hardly entitled to speak at all of aims in life. Its scientific teachings have indeed gone so far as to dissuade men from all

carking care concerning such aims and all supersensuous interests in general, and to recommend them to restrict themselves to a regulated satisfaction of natural wants. But they have seldom gone further, and have hardly ever succeeded in silencing the opposition of a better feeling which always sets itself against such a reduction of life to the condition of a sort of peaceable and aimless vegetation. On the one hand, they have had to give way to human nature so far as tacitly to allow to the knowledge of truth, the charm of beauty, and the majesty of moral commands, that superiority to all mere natural impulses, however urgent, which the mind is accustomed to attribute to them, allowing it in spite of the fact that the superiority is not intelligible on their principles; on the other hand, they have never been able to put a stop to practical efforts which far transcend the needs of a mere vegetative existence. Although in theory men would often have denied the existence of this inextinguishable feeling of being bound up with an imperishable world, yet its activity has been shown again and again, sometimes in provident care for the wellbeing of a distant posterity—a care which seems to spring up spontaneously in men's hearts—sometimes in the intense interest taken in the general improvement of mankind; and, how often, in outbursts of ambition which have disturbed the world! The individual soul that considers itself to be a mere passing production of Nature is seldom altogether indifferent to future fame, and yet in what would the attraction of such fame consist if it were merely attached to a name which no longer had an owner! In all these manifestations there is revealed the suppressed belief in a world of spiritual interests, a world to which its individual members are indissolubly united, far as we may yet be from any clear idea of the way in which what seems so transient becomes endowed with eternal existence.

§ 3. But in the mysterious compound of feelings of which we are continually conscious, that particular feeling of the nothingness and forlornness of our earthly existence is not always dominant. Over against the prose of this resigned mood

stands the wild poetry of *superstition*, as a second great manifestation of human self-consciousness. It has been long ago remarked how surprisingly near the rankest superstition is to unbelief, and how it seems to arise out of it. And, in fact, the thought of the common and natural transitoriness of the individual and of the perdurableness belonging only to the dark and unfathomable Eternal are like two notes that ring out together; a gust of wind may make now one and now the other swell fuller and overpower its fellow. But all superstition depends upon this, that the activity of that Infinite Substance which at first was regarded as guiding the course of individual things only indirectly and from a distance, as it were with calm indifference, suddenly comes to be considered as immediately present in all the most insignificant affairs, permeating the whole frame of phænomena, and connecting its parts together with the mysterious force of an all-pervading fervour, from which the individual creature, surrounded and caught on every hand, is never able to escape

This belief that we are encompassed on all sides by a supersensuous world, among the clouds of which the near and sharply defined outlines of our lives become lost, indiscriminately and past recognition, is also a mood of thought which has, on the one hand, predominated during long periods of human development, and on the other hand, is in all periods ready to come to the front again in isolated manifestations. This mood has influenced life in different ways, according as the temperament and disposition of nations and their greater or less appreciation of the clear factual relations of experience and the primary moral demands of the soul have disposed the imagination either to a calm receptive temper, or to a gloomy or immoderate enthusiasm. Oriental extravagance endowed its picture of the world with a wide background and luxuriant wealth of colouring; it introduced notions of the beginning of the world, of the good and evil principles of all things, of the fall of man from his first estate through Satan, of a history of the world, in the sense of a coherent development of all visible and invisible reality; for it all these supreme thoughts which

the human mind elsewhere only approaches with timidity, appeared above the mental horizon of everyday life, wearing the familiar aspect of well-known stories; they were retained there by innumerable ceremonies—sometimes by monstrous expiations, by which men imagined that they won back sanctification and a power over Nature (of which recovery, however, unprejudiced observation would not have been able to point out the slightest trace)—sometimes by detailed precepts which, petty, vexatious, and useless as they were, hampered the most spontaneous movements of common life by reminders of their pretended dependence on mysterious bonds of the great universe itself. Grecian mythology took a different course; not without loss of instructive content, but with an increase of gracious and artistic development, it restored to freedom the greater part of human life, delivering it from the rank oppressive growth of a mysticism which darkened the world from pole to pole. Different times and different modes of life have favoured different developments of this temper of mind; but wherever our earthly existence has been penetrated by the conviction of a close and thoroughgoing connection between this existence itself and an universal cosmic life, and the conviction has been systematized by attempts to establish a mystic and theocratic regulation of common social relations, the natural course of development has been hindered by the imposition of artificial and to some extent unintelligible tasks, which have thrown into the shade the true physical and moral interests of unperverted human nature.

There arose from this source not only distorted theories, which unconcernedly contradicted the most ordinary experience, but also a series of gloomy ascetic struggles, which are among the most noteworthy phænomena in the world's history, and which in the interests of an ideal end inaugurated an express combat against just those natural foundations upon which the existence of the combatant depends. But on the other hand, where a more propitious course of events has given greater development to men's taste for daily labour and for the pursuit of commerce and manufacture, interest in the

system by which a clear division of daily labour is marked out for different individuals throws into the shade anxiety concerning the connection of our life with an invisible and mysterious order of things; and this anxiety only reappears in isolated manifestations of superstition, which persistently contradict experience, without, however, producing much effect on the whole. In this way of looking at life there is a general preponderance of melancholy; and superstition, believing itself to be everywhere encompassed by the immediate presence of the most profound cosmic relations, feels this encompassing to be for the most part as a continual suspicion, temptation, and menace, with which men are hemmed in by some dark and destiny-laden power. But there is bound up with this gloomy view a higher estimate, unconscious and involuntary, of finite personality. The mysterious connection of things seems to be everywhere concerned with this personality, and to hold it fast; and for that very reason it seems that this cannot be a commonplace, transitory, and insignificant element which the course of Nature makes and then again unmakes, but must be an indestructible and real being that of its own choice and free will ponders the perplexing questions of the universe, and is in a position to incur ineffaceable guilt by its own election. Thus superstition is full of the idea of responsibility, an idea which cannot be recognised by the view which regards every finite being as a mere insignificant production of the Universal Substance.

§ 4. I now hasten briefly to a conclusion which is only intended to form the starting-point of our final considerations. From fluctuation between the two views of life which I have been describing, there arises a state of equilibrium which, though not unattainable for man, is perhaps only fully reached in rare and favoured moments. We would distinguish this third mood of thought as *Religiousness*. In this stage consciousness of our own weakness is bound up with the belief that we are called nevertheless to an imperishable work in the world; and the conviction of an intimate connection between our earthly life and the mysterious whole of

this universal frame no longer interferes with our care for the small tasks of daily life. It is not the power of larger knowledge which accomplishes the union of these conflicting thoughts, but the power of a larger and more living faith, which attributes to the voice of spiritual experience and of conscience as great importance as to the testimony of the senses, and at the same time does not twist this testimony in order to make it accord with a pretended higher knowledge, being content to believe that God has reserved to Himself alone cognisance of the day and hour in which all our longings and presentiments are to be fulfilled. The function of earthly life in the coherent infinity of existence seems to be of the nature of a preparation, of an educative probation, not aimless and empty of significance as a vanishing present unconnected with any future, but on the other hand, not to be an end in itself, or of such binding force, that every error of the school-life must have the influence of an irrevocable fate. From this mode of thought arise the conscientiousness, the earnest endeavour, and the patient love which the mind ought to bring to bear upon the tasks of earthly life, together with that still greater earnestness of mood and calm peace which come to us from feeling that the imperfection of earthly effort has the sting taken out of it; for it is not the outward result achieved (which may be insignificant), but loyal honest labour, which is both the end of such effort and the vocation to which we are called.

But it is after all only for brief moments that we really feel this sense of peace. I am not here referring to the conflicts and disturbances, and the ever-recurring unrest which arise from the differences, smoothed over, but not reconciled, between the conclusions of faith and the importunate objections of science; for it is a keen sense of these differences that is at the foundation of our attempt to get a clear idea of the position and destiny of man. The less, therefore, do we need to point out again in this place what violent disturbances our peace of mind is subject to from this quarter. But there is another human imperfection which we have

often referred to, and must refer to once again at the end of this survey of the moods which characterize our inner life; I mean that unsteadiness of our thoughts and feelings which so seldom allows us to hold fast that which belongs to our peace, and to make it sound on in deep unbroken harmony. Sometimes we think of the ends alone and forget the means, sometimes we are absorbed in the treatment of the means themselves, and lose all remembrance of the end; what is exalted dazzles us, and makes us lose sight of small duties, and no less does the consideration of small things blind us to that which is great; tension and relaxation alternate here as in bodily conditions, and our thoughts are not the same on Sundays and on week-days. How much of that which in hours of thought we acknowledge as our earnest conviction seems for long periods together to slip out of our recollection, being like a hoarded treasure which it is enough merely to possess—and how rare are the moments in which that supersensuous world in which we believe is present to our consciousness as a living truth that really touches our life itself! What we so often see in great matters, delay in carrying out good resolutions, is of almost universal occurrence in small matters; with an honest belief in the unity of our work, and of the connection there is between all human efforts for the fulfilment of one and the same destiny, we yet put off the consideration of many questions, and our activities seem to work independently and in isolation in the most various directions. Thus the whole circle of the sciences, and each science in particular, lose all conscious reference to their common centre, as though each constituted an independent and self-sufficing sphere of interests, and it is the same with art and the industries which minister to the wants of external life; so that while on high days and holidays we recognise the supreme and absolute end, we work on week by week for mediate ends, separated by several removes from the final end. In saying this we wish not so much to express a serious reproach, as to indicate an imperfection from which human nature cannot

quite free itself by the mere force of good intentions. And the confession of this very imperfection is just the concluding duty of this sketch, the business of which has been, not to describe ideals which we have to pursue, but to set forth the opinions which as a matter of fact mankind are accustomed to entertain regarding their ideals, and the efforts which they actually make to approximate to these ideals.

## CONCLUSION.

THE point at which we have now arrived is not a final resting-place, but an inclined plane, along which we have to proceed further, and from which we now make a hasty survey of the whence and whither of the path we have been travelling.

The first important section of our considerations only brought us to an unsatisfying conclusion; it seemed that Man was merely one among countless examples of what can be accomplished by the universal order of Nature's mechanism. We saw, indeed, that laws alone never in any case produce a real being; they produce such only by means of a pre-existent Real, actual, manifold, and primary, which subordinates itself and its working to these laws, its capacity of action being merely directed and regulated by them. But the whole wealth of reality which we have thus to presuppose seems at first to be a mere scattered manifold of fortuitous facts, not joined by any bond of living unity so as to form a second great department of the universe, in the same way as the individual laws of the mechanical order of Nature harmonize together so as to make a first fundamental department. Since experience shows traces not only of a subordination of all individual elements under similar universal laws, but also of their co-ordination into a systematic whole, the parts of which are complementary to one another, this harmony came to be perversely regarded as a blind outcome of the original nature and collocation of cosmic elements; these, it was held, must have a nature and position of some kind, and having just that which they have and no other, must necessarily result in this order, and not in permanent chaos. The pertinacity of this unsatisfactory

view was overcome at last; and it was obliged to confess itself as being in fact only the disguised and unwilling expression of the acknowledgment that the final, the most comprehensive and the fundamental fact of reality, is the unity and inner coherence of creative Nature, which did not throw into that realm of necessary laws an unconnected multitude of examples to be experimented on, but set before them the hidden germ of an ordered world, that they might develop it. And if reflection thinks beforehand of the subsequent combination of its individual conclusions, it will add the thought that, speaking generally, this system of law—to which reality seems to submit—is not in truth a pre-existing necessity to which reality, being of later birth, thus accommodates itself; that on the contrary the creative Nature which seems to adapt itself to mechanical requirements, is the first and only Real, this mechanism being merely the form in which its activity flows forth; and in consequence of the thoroughgoing unity and consistency of this activity, the *form* of it can be abstracted from particular examples, can be isolated as though it were a universal necessity, everywhere the same, and finally can be conceived as a foreign and independent limit of that of which it is the very nature.

It is this living reality that has been the subject of our consideration; we have sought to find in it *Man*, and the position occupied by his special nature as contrasted with the equally special natures of other beings. The result, however, which we have arrived at as the conclusion of our considerations is almost wholly negative. Extensive as we found the influence of universal and uniformly acting conditions upon the development of human existence to be, we found also that it never suffices to explain this development without predispositions to civilisation of the most special kind which it encounters in the human creature, but does not first produce in him. But when, on the other hand, we attempted to determine positively the connection of this human nature with the whole of reality and its significant position in that

whole, our reflections resulted in doubts and obscurity. We know not what there is hidden from us in the countless stars which touch our lives only when a ray from them reaches our eyes by night; how then should we know our place in the whole great universe, with only a small fraction of which we are acquainted? We, living on the surface of this planet, find ourselves at the head of an animal series the perfected type of which is reached in our organization, but of what import is this dignity in the animal kingdom, a matter of which we hardly ever think during life, and which is of no advantage to the progress of our development? Finally, we feel ourselves divided mentally from this animal world by a great chasm; but pursuing ideals which concern us alone, on the one hand we find that we almost everywhere fall short of that in which alone we believe that there is worth, and on the other hand we remark how there vegetates around us simultaneously that other kind of animate life which knows not these ideals. Our own ends are not clear to us; innumerable things exist outside of us, the meaning and destiny of which we know still less; he who would know himself must divine the plan of the whole great cosmic frame which includes such various constituents.

We shall attempt in the last part of these considerations to develop as much of this plan as has been made plain to us by our survey of history, and by the connection of Ideas which the intellectual labour of the human race has gradually attained—thus uniting scattered threads of reflection, and reconciling many an apparent contradiction.

# BOOK VII.

## HISTORY.

# CHAPTER I.

## THE CREATION OF MAN.

Obscurity of the Beginnings and of the Future of Man's Life—Nature and Creation—Steadiness of Development in Nature, and Arbitrary Divine Interference—The Sphere of Nature and the Sphere of History—The Genesis in Nature of Living Beings and of Man—Impossibility of setting this out in Detail.

§ 1. FROM all of us the beginnings of our life are hidden, and beyond the few recollections of early childhood which we venture to trust, there settles down a wide and unknown background of profound obscurity. Yet an eye which could penetrate the gloom would certainly not find it empty; the most plastic period of our life has doubtless been influenced by innumerable conditions which have left behind them results that still continue to operate in us. It may be that these blind and involuntary beginnings of development become comparatively unimportant beside the deliberate self-education of later life; but, for good and for ill, we owe to the impressions stored up in this prehistoric period many a vague propensity of which we are conscious, and which we reluctantly acknowledge, and many a lofty aspiration which we obey as the voice of something higher than we ourselves. And the future as well as the past is hidden from us; we know not whither our course will impel us. A glance at the proximate objects which we have set before ourselves, marks out some part of the path which stretches into our future, but as we travel further along it innumerable unexpected impressions throng upon us, distracting, enticing, suggesting new aims, awaking fresh endeavours, and at the end of our way we find ourselves at a spot quite other than that to which our earliest desires pointed, and unable even to understand much of that which once filled and stirred our whole soul. So

strange is the constitution of that *Ego* which the finite spirit accosts as its Self, and speaks of as its Self. In the full consciousness of inalienable self-identity such a spirit believes that it moulds itself and its nature from the very foundation by its own activity, and does not see that even at the times when it is most conscious of development it does little more than labour at modifying the surface of a germ which, unwitting both of its origin and of its future, it finds implanted within itself.

The same spectacle is presented on a larger scale by the history of mankind. Neither the progress of exact science nor the wider view afforded to human reflection by the ever higher standpoints to which it gradually attains, lightens the obscurity that shrouds both the origin of our race and the final outcome of its development. We have only learnt that there has taken place an inevitable and irreparable dislocation of those graphic representations of the beginning and end of all things between which, as between two fixed limits, the boding imagination of men was wont to believe that the swelling tide of human destiny could be hemmed in. And perhaps the failure to hem it in thus is due to a feeling which is the heritage of humanity and which humanity itself secretly wishes to retain—the feeling that there are in the world immeasurable regions which are veiled in twilight, and a sense (felt by men who are midway between the two profound abysses—safe because hidden—of past and future) of rejoicing in the limited illumination which opens up, over some few centuries of human existence, an outlook that is much interrupted and fills men with forebodings.

To us at least it almost seems as though men's imagination delighted to dwell on the great enigma of our origin and destiny only because it is assured beforehand of failure, and it would perhaps recoil with dread if a bold leap were really to lead to a solution of the questions with which it timorously and yet rashly meddles. As long as these outermost regions are wrapped in total darkness we may interpret the outlines of that which is hidden, in accordance with the longings of our

own hearts; if light were to break in and convince us that it is not as we had thought, it might easily be that the prospect thus opened before us would seem too boundless, the distances too immeasurable to afford us any longer the unreflecting security which had previously made us feel quite at home in the great universal frame.

But we need not speak of this as of something that might happen in case very unlikely conditions were to be fulfilled; the fact rather is that the discord to which we refer has actually been produced by the initial steps ventured by science in the endeavour to throw light upon the origin of mankind. Therefore we must so far yield to the longing which continually draws us to these mysteries as to try and separate between the possible answer to a general question and the impossible satisfaction of a curiosity that extends to details.

§ 2. It was at any rate only among the most unintellectual nations that opinions concerning the origin of the world were due merely to the unrest of ordinary curiosity which (without any sense of the different degrees of importance attaching to different questions) seeks to satisfy itself about all objects of experience, small or great, by a circumstantial account of their origin. In all cases where cultured intelligence has set forth in poetic legends the beginning and end of things, it has been moved by the deeper longing to show that the enigmatical fraction of cosmic order which constitutes earthly history comes forth directly from a higher world, and that after fulfilling its appointed tasks, it will return again whence it came. We have been brought up to believe the most exalted of all these accounts. According to our faith the earth and its denizens were the direct creation of the divine hand, the earth being the only abode of life in the immeasurable extents of space; and the last day will give back into God's own hand the results of earthly history, which is itself the sum of all history, and which has at no moment of its course escaped the vigilant eye of Providence. Creation and judgment bound the changing panorama of history and satisfy our hearts with a sense of

the unity of that unchanging Being in whom are comprehended all the mutations of circumstances.

Is it true that this wide scope of thought has become impossible for the spirit of modern science? Or has it (as often happens with great thoughts) only taken on an unaccustomed form of expression, under which guise it continues to exist in its integrity? Modern science starts no longer from the "without form and void" over which the Spirit of God broods, but perchance, from a sphere of heated vapour which with countless others is whirling round in space; it no longer marks off periods of the world's formation as the work of different days of the divine creation, but measures them according to the decrease of radiated heat, the formation of liquids, the solidification of the earth's surface and its manifold fissures; it no longer deduces the origin of living creatures from an immediate interposition of God, but ascribes them to the gradual evolution of those productions which were brought forth by the inherent powers of primitive matter, being at first simple and becoming increasingly complex. Does all this really decide the great question, Do we owe our existence to Nature or to Creation? and does it decide it in a way unfavourable to the aspirations of faith?

I think not; on the contrary, the longing to emphasize ever more and more the unmediated creative activity of God, to the exclusion of all natural means, must admit that it does itself only bind this activity the closer to limiting conditions, after the inappropriate pattern of human action. It is not enough that the evolution of Nature takes place according to the will of God; governed by a secret conviction that there may be something which resists this will, if only through inertia, this temper of mind desires to see the very application of God's hand by which He either makes nothing into something, or introduces order among the formless elements of things. But such actual application is necessary only for feeble creatures whose will can of itself move nothing, and who must therefore endeavour to accomplish a mediated result by setting in action limbs of a body with which they did not

endow themselves according to laws which they did not set up. Such extremely undisguised anthropomorphism, and limitation of divine action, will indeed, no doubt, be readily given up, or even eagerly rejected; but the more refined representations which take its place are still influenced by the working of the same mistaken idea. If God did not form the world by the might of His hand, must He not at least have breathed into it the breath of life—must He not have spoken some *Let there be*—must He not have given an external impetus of some kind, without which His will could not have been communicated to things? How obstinately does our imagination cling to such requirements! And yet all the time we are perfectly conscious that it is not in the momentum of His breath, not in the commotion produced in the world by the sound-waves of His voice, that creative efficacy is to be sought; this efficacy resides only in the will of God itself, and things do not need to be made aware of this, as of something external to them, by physical hearing and feeling, in order to obey Him who fills their being.

Now, if that which formed the world were neither the visible hand of God, nor the breath of His mouth that might be felt, nor His word that might be heard, but only His will, silent and invisible, what kind of spectacle would have been presented to a mind that had been so fortunate as to witness the process of creation? Nothing but the spectacle of things that seemed to arise spontaneously from nothing, or that spontaneously condensed out of invisible diffusion into visible form, since no audible command called them forth from a pre-existing storehouse—nothing but the spectacle of movements which seemed to spring spontaneously from the elements themselves and their invisible action and reaction, since they were not communicated by any perceptible breath from God's mouth—nothing, finally, but the spectacle of bodies which, as no visible hand put together their constituent parts, would seem to be produced by the reciprocal attraction of the elements. Therefore the process of the formation of the world would appear in no way different to him who conceived

of it as pervaded by the creative activity of God, and to him who could see in it nothing but a successive evolution according to natural law. If, therefore, we, setting out from experience, feel ourselves compelled by scientific consistency to trace back the chain of such developments to the very beginning of the world, we need not fear that we shall on this account be necessarily driven to adopt a conception which excludes the dependence of the world upon God. On the contrary, we arrive in the end at just the same conception that should be presented to us from the beginning by faith in a divine creation, if such faith understand its own aim. For the purer and grander our conception of this creative activity is, the less shall we expect at any moment a special manifestation of the finger of God in the phænomenal world; but we shall, on the contrary, believe that His almighty power is present in the constancy of Nature's regular working, invisible, but not therefore less efficient.

§ 3. But—it will be objected—does this set our doubts at rest? Is the bitter thought taken away, that what is great and what is small, what is exalted and what is mean, all proceeds indifferently from the inherent powers of the material elements? Was there no more express divine volition exercised in the production of living creatures which are destined to the passionate struggles of an historical development than in the formation of the inanimate surface of the earth upon which their life is to be lived? Did no specially solemn circumstances distinguish the beginning of our own existence, did no interposition of powers superior to the uniform course of Nature mark a division at the point at which creatures endowed with mental life appear upon the destined theatre of their activity?

In mentioning this last requirement I am not jesting; we are all subject to fancy that great events are not quite complete unless their entrance upon the stage of life is glorified by a striking transformation both of the stage itself and of the actors; and even in the present case we are subject to this fancy, although we must admit that here the

splendour of the new scene would be wasted, no one being in existence upon whom it could make an impression. This being so, we can with all the more force meet the first objection to which we referred, by asking what is meant by that inherent power of the elements to which men are so reluctant to attribute the origin of the animate world? The fact is, that those who with pitying consideration would convince us how utterly impossible it is that the beauty and significance of living creatures could have arisen from the mere action and reaction of the elements, combat us from positions which we believe that we ourselves hold more strongly even than they. For it is they whose view betrays the erroneous presupposition that there could be action and reaction of elements, whilst these elements are regarded as isolated, and not comprehended in the One, and that such action and reaction might lead to definite results. And having inconsiderately abandoned to this mode of being and of action (which they regard as possible) the one part of Nature, they seek, arbitrarily and too late, to withdraw from the same influence the other part of Nature, being alarmed by an exaggerated estimate of difficulties which it seems to them that nothing but a direct interposition of divine power can remove. Too late; for if elements, through their own nature and without any concourse of God, are capable of exercising certain activities, how are they to be subsequently made dependent on divine government? If the divine will makes any call upon them for action which does not follow from their very nature, will they not oppose to such calls, not only mere passive inertia, but also all the resistance of which an independent and active being is capable? And how could this resistance be overcome unless both God and Nature were embraced by a higher law valid for both, which should guarantee to the divine will a definite measure of obedience on the part of Nature? If one seeks to heighten the idea of divine governance by representing it as acting from without upon a spontaneously active world which is opposed to it, and by ascribing to it forms of activity other

than those according to which this world itself acts, one is inevitably led to the conception of divine action above indicated, a conception applicable not to the infinite God, but to a restricted and finite being.

But it would be wrong to regard the mode of thought discussed above as the only one which is opposed to our own view. On the contrary, those who agree with us in recognising God's working under the forms of Nature's activity, may yet doubt whether this working restricts itself to such forms and spends itself in them. The rejection of the figurative representation of the application of God's hand will not be considered a sufficient refutation. For your imaginary observer—it might be said—there may indeed have been no divine hand specially visible among the phænomena of the genesis and formation of the world, but all may have seemed to him to result from invisible powers of spontaneous growth. This, however, would by no means prove that every single moment of such development contained within itself all the necessary conditions for the production of that which should follow, and that there was no need of divine aid in order to complete the conditions necessary to a result apparently, but only apparently, caused by the complement of phænomena. We should be making an arbitrary assumption if we supposed that after the creation of things and the regulation of their evolutionary relations, God would withdraw Himself for ever from the world; but, on the other hand, it would be possible and probable that at every subsequent moment He should require from things actions which were not contained as self-evident consequences in their previous performances; and, finally, we could not doubt that these commands of God would be unhesitatingly obeyed, just because the nature of things and their capacity of action are a nonentity without Him.

But, we would reply, that completion by divine aid must either be something which is according to rule, and the addition of which at a definite point in the order of the world had been determined by God from the beginning, in

accordance with the eternal consistency of His being; or it must be something which is not according to rule, something which He adds without finding, in Himself or in the phænomena to which He supplies it, a reason for choosing this particular kind of completion and no other. In the first case this divine help is included from our point of view in the enlarged idea of natural order, since we hold that Nature never works without the concourse of God; in the second case (which, indeed, is that which common opinion prefers), we have to ask, What is the worth of the advantage which is to be secured by such a view, and which is advocated with jealous preference? Shall we regard God as greater, if we believe that He governs the world by a series of disconnected commands? or Nature as more exalted, if we believe that, as a whole, it is at all times—or even only occasionally—inadequate to produce the phænomena of the next moment? Whence comes it that the other form of divine activity (that of the steady development from within of a pre-existing germ) always has to fight for acceptance in our minds with a preference for uncertain repeated interpositions of divine activity coming from without?

As a matter of fact, it is the ascription of this very consistency to the divine activity which is repugnant to a secret craving of our souls. To make all subsequent resolves only the necessary results of one primal resolve, and all subsequent activity only the inevitable result of an original creative volition, involves a denial of freedom of action which seems to us incompatible with the idea of a living personal God. Our view threatens irresistibly to issue in a superstition which regards the world as being merely the unintentional necessary development of a spontaneously expanding primal being, to which, at the same time, all history seems meaningless, since that which had once been included in this being at the beginning, as something which must necessarily follow, could have nothing essential to gain in the course of events in which it should undergo a special process of production. The capacity of doing what without

such doing would never have happened, of preventing what without such prevention would inevitably have occurred, the possibility of gaining in insight and in range of will, and of ceasing to desire that which had previously been desired, and finally the consciousness of a capacity of independent determination, not only as regards the future form of the external world with which our action is concerned, but even as regards the consistency of our own nature—all this it is that we seek in a living personality, that we think we find in ourselves, and that we miss in a representation of divine action which exhibits it as always bound by its own special law. To secure these treasures of freedom and vital action for God as well as for ourselves, we have recourse to modes of representation that labour under obscurities and contradictions of which we are not ignorant. This is why we prefer the thought of an uncertain and disconnected divine activity; for truly to us finite beings it seems as though our freedom were most clearly certified by the inconsequence with which we can alter and break off the course of our development. This is why we do not even shun the danger of degrading divine activity to the external elaboration of a material world existing from eternity; for we even fancy that we have a fresh proof of our freedom and capacity of arbitrary choice in the opposition which the inherent activities of the external world offer to our exertions. This is why we so often renew the attempt to reduce as far as possible (since we cannot altogether deny) the sphere of development according to natural laws, and to draw a sharp boundary line between *Nature* as the *realm of necessity*, and *History* as the *realm of freedom*.

In both there lies before us a succession of changing events. But as far as Nature is concerned we should be quite satisfied if it were only a collection of occurrences which without being connected in systematic and progressive development were merely confirmatory and concrete examples of the steady validity of certain universal laws. It is only in the mental development of the human race that

we feel a primary need of comprehending the series of events as a history of which the end is more worthy than the beginning, and the whole of which would be worthless if it were merely a repetition, in time and destitute of freedom, of that which already existed—not subject to temporal limitations and prefigured in full completeness—in its causes. All the lavish passion of longing and remorse, love and hatred, with which history is filled, we are unwilling to regard as wasted; and it would be wasted—yes, and the very existence of mental life would seem to us an incomprehensible anomaly—in a cosmos in which there was nothing to change, and which, undisturbed by all this struggle of souls, was entirely taken up by the leisurely development of already existing conditions. And now having reserved for the history of this spiritual life that freedom which it seems to need, we once more extend our demands beyond our requirements; we will not cede to the sway of that detested natural necessity even our physical existence or our origin. We would much rather owe them to the fiat, *Let us make man in our image.* Even in such a representation the creative activity of God seems to us more near and intelligible, more full of life and warmth, and our own existence seems to have a nobler and happier origin than if we believe that we, like the rest of Nature, have been produced by an unresting coherent development.

Now this distinction between Nature and History certainly points to real mental needs, the satisfaction of which we shall consider later. But we can agree to the separation of these two departments without acknowledging the false boundary line, which, needlessly and contrary to experience, marks off the origin of mankind as not belonging to the sphere of natural development. According to the present course of man's life, experience shows us that wherever it is connected with the external order of Nature, it is wholly subordinated to the rules of this order. Races of men arise and pass away according to the same laws, and after the same fashion, as races of animals; the external powers of Nature are not more forbearing towards the pre-eminent

creature endowed with a rational mind, than they are towards the irrational animal; their destructive influences affect the life that is historically significant with the same impartial indifference with which they dissolve combinations of lifeless matter; finally, nowhere does Nature quit, for the gratification of rational minds, the paths of her accustomed activity, rejoicing our hearts with the wonders of a Golden Age in which everything happens for our satisfaction, instead of merely that event happening which is the inevitable result of previous causes, there is no way of bringing about transformations of the external world corresponding to our inner life, except by our activity availing itself of natural means in obedience to the laws of Nature. Thus we, being in our life, our sufferings, our achievements, altogether holden by the power of natural necessity, should gain but little by rescuing the origin of our species from the grasp of this necessity. The freedom of such a distant past could be no compensation for present constraint.

And just as little do we feel that our claims to freedom are necessarily demolished if we give up this attempt. For we originally desired this freedom only for our inner life, and indeed only for a small part of that. This spiritual life, receiving stimulation from Nature, and limited in its reaction to natural means, is not itself directly included in the order of Nature. Between this stimulation and these reactions is interposed, as a department *sui generis*, the internal elaboration of the received impressions. There may take place here innumerable occurrences which are more than the steady continuation of effects initiated in us by the external world; there may take place innumerable connections of received stimulations, in accordance with points of view which altogether transcend Nature, resulting in the production of impulses to reaction to which mere natural order would never have led without this complementary interposition of mental life. However highly one may rate this free action of mental power in human nature, it will always receive due estimation as long as it is limited to the world of thoughts; but only in

subordination to certain laws will the cosmic order admit of its efficient access to external Nature. And however specially we may imagine the history of mankind to be guided from the loftier standpoint of divine wisdom, from a higher plane than natural evolution, we may be quite satisfied if this guidance takes place through action and reaction between God and the spiritual nature of man, in such a way that the thoughts, feelings, and efforts thus aroused and developed, also alter the external position of mankind, to the same limited extent to which our action is able to change the physical conditions of our existence. Thus within the realm of Nature with its uninterrupted coherence, there is certainly a possibility of history, and we are neither justified in maintaining nor bound to deny, without proof, that to this history freedom appertains; but the external destinies of our race only belong to history in as far as they depend upon our own actions.

§ 4. After these remarks we may return to the two questions which we mentioned above. We can now answer the question which refers to the general process to which we trace back the origin of living creatures in general, including the human race. This occurrence also we unhesitatingly conceive as a necessary result, which at a definite period of the earth's formation arose from the then existing collocation and reciprocal action of matter, with the same inherent necessity which now connects the continued existence and the reproduction of living creatures with the present distribution of material masses and their relations to one another. The course of Nature, indeed, from which we believe that living creatures have sprung, is in our view something richer and fuller than that small fraction of it which is known to science; so far, such a course of Nature is not confined to working upon lifeless matter, but presupposes inherent activity in its elements, and it will perhaps be the glory of the future to define the special characteristics of this activity, and to determine the laws of its influence upon the external operations of things. Moreover, we do not maintain that all which the elements can accomplish is to be measured by the narrow possibilities still

left open by the rigidity which the most essential natural relations have now attained. In earlier stages of cosmic development, when (everything being yet in process of formation) there was both greater celerity of change and also a prevalence of modes of connection which did not afterwards recur, it may perhaps have been the case that the elements produced effects different in nature and magnitude from those to which the present course of Nature gives rise, limited as this is to the maintenance of uniform conditions. However, we do not by any means mention these fluctuating and never definitely circumscribed representations in order to embellish our own view in the eyes of our opponents, but rather for the sake of pointing out that none of them can mitigate the rigour which causes so much alarm. For if there is one thing that we shall always hold fast by, it is that even these creative habits of the primal course of Nature were events governed by law, and proceeded from an activity that in its own course laid fresh foundations, by means of the productions of its early periods, for the more intense and complex activity of later periods. Nature works from the beginning according to laws which either (1) are unalterable, or (2) themselves alter regularly, as the conditions alter which have arisen under their sway, and are therefore to be regarded as regular and ordered functions of their own results.

On the other hand, it is altogether impossible to answer the particular questions prompted by curiosity concerning the circumstantial course of events from which there gradually arose the structure of organic beings and of man himself. A view which does not attribute this occurrence to supernatural and therefore in itself indescribable influence, but makes it dependent on the concatenation of innumerable details, will inevitably lay itself open to the reproach of rash and arbitrary invention if it attempt to enumerate all these details, for the real determination of which our own range of experience is very far from furnishing adequate analogies. This fate has overtaken all attempts to exhibit the gradual evolution of the higher forms of living creatures from the lower, and the origin

of these from the immediate action and reaction of the elements. But there are two considerations which we desire not to withhold from the notice of those who would found an objection against the general conclusions of natural science upon its incapacity to exhibit the details of these conclusions.

In the first place we may, without much difficulty, convince ourselves that this difficulty in describing first beginnings is a misfortune by no means peculiar to our theory, but is one which it has in common with all others. It certainly sounds passing strange when a daring investigator of Nature describes the protoplasmic cell, which, having been formed in the ocean and slowly borne to land, is there developed into a quadruped or a man; but the poverty of this attempt lies rather in the total ineffectiveness with which it addresses itself to the insoluble problem, than in the fact that different assumptions might lead to a better conclusion. Hence it seems a matter of indifference whether we attribute the origin of animate life to the natural action and reaction of the elements or to a peculiar vital force; any representations which we can frame of the gradual concrete progress of its formation will be just as strange and untrustworthy in the one case as in the other. If, according to the first view, the elements combine spontaneously to form a protoplasmic cell, or a germ, which then goes on to further stages of development, according to the second view the vital force is just as shy of revealing its mode of operation. For naturally we shall not believe that this vital force forms the finished creature with all its parts in an instant from the elements, and if we seek to show how it works by a progression from the simpler to the more complex, the cell or the germ (from which in this case too we have to set out) seems no better endowed and no more probable than the cell and germ which in the previous case we derided. The Mosaic account of the creation employs two different representations of the way in which things arose. First God says, *Let the earth bring forth all manner of herbs.* Would the results of the command to produce plants, thus communicated to the forces of

the soil, have differed in appearance from the conception of natural science, according to which the separate elements of the soil first developed into germs, and these again into plants? The attempt to work out this idea in detail is as hopeless as all others of a similar kind. Man, on the contrary, is formed by God's own hand; but we do not need to repeat how unsatisfactory is a comparison taken thus directly from labour of the most ordinary kind. It therefore appears that all these modes of thought are involved in equal difficulties when they attempt to give sensible representations, that shall be credible and probable, of processes which are separated by a gaping chasm from the sphere of our own experience.

The other point that I wished to notice is, that we are accustomed to estimate one and the same idea very differently when it comes before us as a conjecture, and when it is offered as the expression of a fact. What a succession of minute and interdependent events is presented by the intricate processes of formation, fructification, and development in the seed of a plant! How complex, and in many of its features unintelligible to us, is the development of animals by division and coalescence, segregation, and aggregation, and various changes of an apparently supplementary character in the relative position of parts—some of which seem to waste away after having rendered their mysterious service during a definite period of development! Now if any one, unsupported by the testimony of the microscope, should have conjecturally described the multiplicity of arrangements which that instrument actually reveals, how those who consider animate life to be only comprehensible as resulting from the misty and magic sway of a single impulse, would have found fault with him for advocating a mode of thought at once rash, tedious, and intellectually poverty-stricken! The fact of alternate generation among the lower animals having been established by observation, scientific speculation finds it by no means difficult to discover retrospectively ingenious theoretic grounds of interpretation, whereas beforehand any conjecture that such variation might occur, would have been rejected as an impossi-

bility, contradictory of the idea of sex, and of the whole economy of natural history. Whether the original production of animals and plants by the conjunction of inorganic elements will ever be proved as a fact which still takes place, we do not know; but if a day should ever come when it is proved, then people will suddenly remember that it was a thing always possible in the very nature of it, and that it never involved the absurdity that people see in it as long as it is only a scientific conjecture that is inconvenient to various prejudices. Let us therefore trust our question to the future; let us leave science to make further investigations; if it should ever succeed in drawing a more definite picture of the origin of animate life, people will accept with equanimity realities coinciding wholly in essentials with processes which, now that they can only present themselves as possibilities, are peevishly rejected as wretched inventions of a low and unworthy mode of thought.

Such being our views, we regard as useless any further lingering in these outer courts of history, in which science can discover merely shadowy outlines and no clearly defined forms. We will not follow the astronomical investigations which seek to discover how the world was formed, and to decide whether the distribution and movements of the heavenly bodies make it probable that there is a common centre of this universal frame, or whether it is more likely that many stellar systems, each independent in itself, circle round a merely ideal centre of gravity by the force of reciprocal attraction. As much as is certain in these considerations only confirms what we knew otherwise, namely, that it is upon a small eccentric spot, lost as it were in the immensity of the whole, that this human life is developed, with all its passion and lofty aims—a brief and serious monition which points out to us an abyss of unknown possibilities, and warns us that we should not take it for granted that earthly history is equivalent to that of the universe.

Neither will we enter into geological investigations, and immerse ourselves in a consideration of the different periods

of the earth's formation, and in discussions as to how the gradually altered condition of the atmosphere and of the solid surface of the earth, furnished at different stages the conditions of the production and maintenance of various successive organic creations. The magic spell which descriptions of this vast and obscure past always exercise upon our mind, would give to my colourless picture a charm which I find it hard to renounce. But these investigations proceed upon many uncertain assumptions and are laden with sources of error; and they are therefore specially unsuited for the confirmation of definite results at the present moment, when many noteworthy discoveries have wakened attention without having caused any decided clearing up of difficulties. Yet it seems that man is one of the most modern denizens of the earth; indubitable remains of our species have not been found deeper than the later alluvial strata, which are still being slowly and steadily increased in low-lying levels by progressive deposition of the matter of abraded rocks which is carried down by the current of swift streams. Therefore it seems that man was not produced before a time in which existing climatic distinctions prevailed, and the vegetable and animal kingdoms had developed in all essentials the forms which we now see around us. We must leave it for the future to prove whether this limitation can be removed and a much longer vista be opened before us, in which there may perchance be hidden many beginnings of races of men differing widely from one another. Without at present declaring for this view as the more probable, we may yet feel that we ought to be prepared to accept both it and the altered position which the small section of historical development at present known to us would occupy in such an enlarged life of humanity—a life which to our imagination would be almost boundless.

And, finally, we should not lay too much weight on presentiments as to the future to which we may be tempted by that insight into the connection between the different forces of Nature which has now been attained. Whether reciprocal transformations of energy or a consistent consolidation of all

particular results of the course of Nature, will gradually produce a permanent preponderance of such conditions and modes of motion in matter as are incompatible with the continued duration of animate life, or to what other fate this earthly sphere is destined—these are points concerning which we can no more look for certain information than we can regarding the very first beginnings. Let us therefore bid adieu to these insoluble riddles, and turn from the external history of the human race to that inner history of humanity which, with its manifold changes, is included in the slower progress of external Nature.

## CHAPTER II.

### THE MEANING OF HISTORY.

What is History?—History as the Education of Humanity—History as the Development of the Idea of Humanity—Conditions necessary to make such a Development valuable—Concerning Reverence for Forms instead of for Content—History as a Divine Poem—Denial of any Worth in Historical Development—Condition of the Unity of Humanity and of the Worth of its History.

§ 1. NOW what is the significance of this inner mental history of the human race? What are the laws of its course, or the plan which connects into intelligible unity the varied wealth of its phænomena? Our age boasts as its prerogative that it knows an answer to this question; but however dangerous it may be to rebel against modes of thought to which vigorous and brilliant intellectual essays have accustomed us, we must still confess that in regard to history there is no lack of the most contradictory opinions, each of which disputes even the elementary assumptions of the others. I will not linger over the cool assertion that everything has happened already and that there is nothing new under the sun; but remark that in opposition to the willingly accepted doctrine that the progress of humanity is ever onwards and upwards, more cautious reflection has been forced to make the discovery that the course of history is in spirals; some prefer to say epicycloids; in short, there have never been wanting thoughtful but veiled acknowledgments, that the impression produced by history on the whole, so far from being one of unmixed exultation, is preponderantly melancholy. Unprejudiced consideration will always lament and wonder to see how many advantages of civilisation and special charms of life are lost, never to reappear in their integrity, when any form of culture is broken up. Subsequent ages may com-

pensate the loss by other and indeed by higher advantages; but this does not alter the fact that the earlier ones have passed away never to return; that which past times have toiled for and won can never be inwoven with the work of subsequent ages with the completeness necessary for continuous and steady progress, but nearly everywhere the new life arises out of the ruins of the old at the cost of painful sacrifices. This melancholy impression received from history as a whole is not much mitigated by well-meant reference to the fact that in individual life too the bloom of youth must be sacrificed to the strength of manhood, and this again to the wisdom of old age, and that it is only the most favoured lands that are permitted to see fruit and blossom and bud simultaneously on the same plant. Do not all these comparisons only increase the grounds of our complaint? If, however, they comfort any one, is not the comfort they bring derived from the thought that human history is itself only a natural process to which we must accommodate ourselves, and about the right and end of which it is of no use to ask? But for him who clings to the belief in a guidance which is ordering this confusion of human destinies to some higher good—how is *he* to interpret the spectacle which history presents?

§ 2. That history is the *education of humanity*, is the first phrase with which we provisionally pacify ourselves. And indeed unfathomable designs of educative wisdom must ever be a fruitful source from which to derive all the astonishing turnings and twistings of the course of history. But if we are not wholly satisfied with this general consolation which would allay our doubt with the bare assurance that a solution exists, if we seek to trace at any rate in the great outlines of history that educative plan, how many hindrances do we meet! We know sometimes what has happened, and can see how it led necessarily to the subsequent condition of things; we may often be certain of the greater perfection of what is later in time, and even a dull mind may often perceive some arrangement by which the new condition of things will draw

advantage from the old; but who can calculate with certainty what would have happened if particular circumstances had been different, or can say what possible greater good may have been missed by the actual course of events leading to something that was less good?

I wish, however, to speak, not of the difficulties of carrying out this view fully—such difficulties being in fact very great for every view—but of the doubts which are raised by the application of this idea of education to mankind. Education is only intelligible to us when a single individual is concerned; when it is one and the same person who becomes better, who bears the penalty of his mistakes and enjoys the fruit of his repentance; and who, if in the progress of development he has to sacrifice some good which he possessed, may yet keep the memory of it as something which he has himself enjoyed. It is not so clear how we are to imagine one course of education as applying to successive generations of men, allowing the later of these to partake of the fruits produced by the unrewarded efforts and often by the misery of those who went before. To hold that the claims of particular times and individual men may be despised and all their misfortunes disregarded if only mankind improve upon the whole, is, though suggested by noble feelings, merely enthusiastic thoughtlessness. The humanity which is capable of progress can never be anything other than the sum of living individual men, and for them nothing is progress which does not mean an increase of happiness and perfection for those very souls which had suffered in a previous imperfect state. But the humanity which is opposed to individual men is nothing but the general concept of humanity; this concept, however, which can neither suffer nor experience anything, nor undergo any evolution, is not the subject of history. Only individual specimens of humanity, humanity of different periods, can, when compared together, show a steady progress towards perfection; but the earlier know nothing of those which succeed them, and the later know little of the earlier. What then is it that justifies us in regarding these disconnected members as one

humanity, and what is the meaning of an education which does not do just that which is the very business of education—which does not attempt to replace what is more imperfect by what is more perfect in the same pupil, but throws aside the half-educated scholar in order to bring forth better results of culture in another?

And the same difficulty at once recurs if we look not at the succession of ages, but at each particular age itself. There has never been a period of history in which the culture peculiar to it has leavened the whole of humanity, or even the whole of that one nation which was specially distinguished by it. All degrees and shades of moral barbarism, of mental obtuseness, and of physical wretchedness have ever been found in juxtaposition with cultured refinement of life, clear consciousness of the ends of human existence, and free participation in the benefits of civil order. Humanity, at the different moments of its historical progress, is never like a clear and even current, of which all the molecules move with equal swiftness; it is rather like a mass of which the greater part moving on thick and slow is very soon checked by any little hindrance in its course and settles into inactivity; there is never more than a slender stream which, glancing in the sunlight, struggles on through the midst of the sluggish mass with unquenchable life and energy. It is true that sometimes this stream widens out, and then occur those favoured periods in which, at least for us who stand afar off, a general enthusiasm of culture seems to seize a whole nation. That it does not indeed really extend to all, even we who live later can see; that it does not exclude very dark shadows of sluggishness, of debasement, and of misery we should observe more clearly if we stood nearer.

Now nothing is simpler than to give an explanation of this if we regard history as merely a course of events arising from the concurrent action of external circumstances and the laws of mental life. A culture which does not merely mean natural goodness of disposition, but includes also knowledge of things, estimation of the tasks and circumstances of human

life, and consciousness of the connection between the individual and society and between society and the universe, is not conceivable apart from the most varied influences of education and of continued intercourse with one's fellows; but the hindrances which have their origin in the external circumstances of existence, and which always stand in the way of a general prevalence of such favourable conditions, are unfortunately too obvious to need further mention. Thus the existence of a vast spiritual proletariat, which there seems no possibility of removing, is an objection which the idea of history as the education of mankind must find it hard to overcome. Human action must be content to attain its end only in part; but it is not enough that the divine guidance of history should accomplish its aims only on the whole or in the majority of cases. Conditions of mankind which, independent on individual freedom, follow with inexorable necessity from external conditions, should be susceptible of interpretation as instances not of the failure of this guidance, but of ends intentionally aimed at by it. And in fact such an interpretation has not been wanting. As different trees, it is said, have different bark, and each, whatever its rind, grows green and blossoms in content, so mental endowment and external good fortune, and with them the degree of culture attainable for men, are variously distributed; there is progress enough if, notwithstanding all these irremovable differences, mankind as a whole wins higher standpoints; enough even, if while the mass of mankind remain ever in an uncivilised condition the civilisation of a small minority is ever struggling upwards to greater and greater heights. In answer to such a view what can we say except that it sets forth a condition of things which, alas! we cannot question, but that it neither offers any explanation which makes this condition more intelligible or more endurable, nor shows us how, upon such assumptions, we can be entitled to speak of an education of mankind.

Let us, however, for the present reckon as among the many puzzles which we cannot solve, this inequality in the endow-

ment and good fortune of men, and content ourselves with the progress of the few. But however great this progress may be, we would, finally, ask of this view which we are calling in question, why precisely it was necessary that there should be an education of mankind resulting in progress, and why an end should have been set before us which could only be reached along the tedious path of historical development? And it will not satisfy us to point out that the slow course of gradual improvement was the only possible way left open by the nature of mankind and the constitution of the external conditions of life. The divine power, which is supposed to direct this education, created the world, and man, and all the conditions of his life; it was open to it to order them all according as it would. If, then, it chose to educate mankind by way of history, it did not so choose because hindered by the disfavour of circumstances from endowing us with perfection in the beginning, but because it willed that history should be, and willed to bestow upon us, in gradual development, a greater good than that would have been which it withheld.

This inquiry has indeed been so often and so unanimously answered that we shall perhaps give offence by approaching with such circumlocution and delay a philosophical question the reply to which seems thus certain. Man, we are told, must become in knowledge that which he is in fact; it is not enough that he should be and remain in unreflecting simplicity that to which by his mental constitution he is destined, but he must realize it gradually and consciously as his own work. The dignity of man lies in this, that he does not (like the lower animals) with unconscious impulse work out ends towards which uncomprehended motives and favouring external circumstances mysteriously concur, but that doubting, erring, and improving, he learns to know his destiny, his duties, and his powers.

A survey of our own individual life will certainly easily convince us that such development from unreflective existence to explicit self-consciousness is a mental gain of a

unique kind; but can we in truth transfer to the whole of humanity the value which we see that it has for the individual, and is there not in such a transference an inexactness similar to that which made the notion of education inapplicable to a succession of different individuals taken *en masse*? For can this inner work of development (in the comprehensive and self-conscious remembrance of which the moral enjoyment of life consists) be carried out vicariously by one individual for another, or by one generation for another? Or does history perchance exhibit such a steadiness of connection that the minds of later times pass at least in outline through the same evolutional struggles by which their ancestors were stirred?

It seems to us that nothing of all this happens. In the first place, each individual enters into life without any conscious connection with the past, but with those natural capacities, wants, and passions of his species which are little changed in the course of history; and which, in as far as they are changed, are yet for him who is born with them just as much an unmerited and unconsciously received endowment of Nature as the dispositions of our forefathers were for them. Thus furnished each goes through the experience of his life, each passes through his own evolutionary struggles, and all these also are essentially similar. The influence of history first begins when the individual encounters the results of the labours of his immediate predecessors in the conditions into which he finds himself born, to which he has to grow accustomed, and which he has to use and to combat. Without doubt the form of development which the individual passes through is modified in the course of history; but it is not by any means modified in such a way that every one who comes later has a view of the course of human development which is fuller and more conscious in proportion as the time is longer during which past ages have been endeavouring to struggle upwards through individual stages of evolution. For by this spiritual labour, which wins positions from which it can itself make a fresh start, con-

scious knowledge is propagated either not at all or most imperfectly; what happens is that its finished results enter as a great aggregate of prepossessions, of which the foundation is forgotten, into the culture of him who comes after. They may in this way often make it possible for him to mount higher than those who preceded him; but nearly as often they are, as inherited limitations of his intellectual horizon, hindrances in the way of a development which would have been possible for him if this historical dependence had not existed. But in both cases the way in which the culture of past times is for the most part handed down, leads directly back to the very opposite of that at which historical development should aim; it leads, that is, to the formation of an *instinct* of culture, which continually takes up more and more of the elements of civilisation, thus making them a lifeless possession, and withdrawing them from the sphere of that conscious activity by the efforts of which they were at first obtained. No fortune, it is said, is transmitted undiminished to the third generation; and this is very natural; for the first inheritor is born and brought up in the presence of the activity by which the fortune was accumulated, and if the desire to increase it leaves him, the desire to preserve it generally remains; the second inheritor born in full possession of the wealth knows nothing of the worth of the labour which created it; thus the third has to begin the same cycle afresh. The same thing happens with the store of culture which history accumulates. It is true indeed that the results of the latter cannot be so easily dissipated, as on the other hand they cannot be so completely transmitted; but the elevating freshness and joyousness, full of prophetic insight, that distinguish an age of invention and discovery, are not transmitted to the ages which are its heirs. Scientific truths, hardly-won principles of social morality, revelations of religious enthusiasm and artistic intuition, are all subject to this devitalization; the greater the amount of this wealth which is transmitted to later generations the less is it a living possession, even when outwardly recognised and retained,

which it not always is. That which once, when it first arose upon the intellectual horizon of the past, was in truth a living enlargement of the soul, and a perception, full of meaning, of some new aspect of human destiny, is, in the hands of later generations, like a worn coin which one takes at its nominal value, but without knowing what are its image and superscription.

In no department is the progress of mankind more unquestionable than in that of science, although even here it has not been continuous, interruptions caused by long periods of barbarism having often made necessary the rediscovery of forgotten truths. But first of all we may note that this progress has brought about the strange result that the whole field of knowledge has become too vast to be within the grasp even of those who are expressly occupied with its cultivation How odd and yet how accordant with fact it is to speak of "the lofty position of science now-a-days." What is science? Not truth itself, for this existed always, and did not need to be produced by human effort. So that science means simply knowledge of the truth; but this knowledge has become so vast that it can no longer be comprehended in the knowledge possessed by any individual. Such is the strange life of science now-a-days; it exists, but for any individual it means only the possibility of investigating and learning to know each of its parts; in no mind does it exist in completeness, approximately in but a few, and hardly at all in the mass of mankind. We see that now, as in all former ages which were in possession of extensive and varied scientific knowledge, individual men take up particular branches, and on those small battlefields fight out the most passionate combats, combats which sometimes seem to jeopardize all that has been gained by human culture. The progress of science is not therefore, directly, human progress; it would be this if in proportion to the increase of accumulated truths there were also an increase of men's interest in them, of their knowledge of them, and of the clearness of their insight concerning them. Without denying that some periods of history

have to a certain extent fulfilled these requirements, we can hardly say that, looking at history as a whole, it exhibits a steady improvement in this respect.

But it will be objected that the progress of mankind towards perfection is to be sought not only in the advance of conscious knowledge, but also in the beneficent effects upon men's condition which science leaves behind even when it has itself passed out of consciousness. These effects have been eloquently described, and we willingly admit that even in the more tangible deposit of material improvements which everyday life owes to advancing knowledge, there is, besides the mere convenience and the increase of comfort, also a certain mental gain and a certain civilising power; the mere presence of refined surroundings may have a modifying and elevating influence upon those vague general moods which make as it were the background of all our endeavours. But while we do not deny the value of this progress, neither would we overestimate it. Custom soon diminishes it. A new discovery excites lively interest for a time, but it soon falls back into the rank of those natural objects and events by which we are always surrounded, the mysteriousness of which no longer has any exciting effect upon us, owing to the lack of novelty. At the most now and then in a moment of passing absorption in a thing, we think, After all how striking this or that discovery is—or, How it has helped on human intelligence. But most commonly it happens that men thoughtlessly enjoy the fruits of inventions with a certain coarse unthankfulness, without a gleam of interest or curiosity with regard to the mental labour which produced them, and as though it were a matter of course that their poor life should be adorned by such uncomprehended blessings. Hence we are justified in affirming in conclusion, that however great human progress may be, yet at all times men are but very imperfectly conscious of this onward movement, of the point in the path of advance at which they may happen to be at any moment, and of the direction whence they came and whither they are going. If it is

their destiny to become conscious of that for which they are designed, it may indeed be that they attain such a consciousness, but they attain it without themselves noticing or feeling its gradual awakening; it cannot be said that men grow to what they are with a consciousness of this growth, and with an accompanying remembrance of their previous condition. Therefore the notion of education, when transferred from the individual (with reference to whom it is intelligible) to mankind as a whole, solves none of those doubts which the consideration of history awakens in us.

§ 3. Will they be any better solved by another theory, the favourite of the immediate past, which has long been impatiently awaiting our consideration? According to this theory the education of mankind is an antiquated and unsuitable phrase, although what it is intended to express is the truth. This phrase gives the idea that God arbitrarily sets before men ends which He might have refrained from setting before them, and leads them in paths for which others might have been substituted. Hence the education theory involves us in the misery of attempting to show the significance and importance of a series of events which yet as products of arbitrary will must remain inscrutable to reason, which can comprehend only necessary consequence. Whereas, in fact, the history of mankind (like all genuine evolution) is but the realization of its own concept. All true existence, it is said, manifests itself by emerging, as life, from that condition of natural determination in which it originally is, unfolding itself in a wealth of change and varied manifestation; and finally returning as it were to itself deepened and enriched, and enlightened concerning its own nature by the work of development which it has passed through, and the fruits of which it retains. It is by this law that mankind are stirred and impelled to historical development. As the self-development of the human mind, and as the very destiny and inner necessity thereof, history can neither be a course to which we are impelled by the arbitrary choice of an overruling purpose, nor one to which we are impelled by the unintelligent activity

of external facts. But it becomes intelligible by reference to the idea of humanity; not only does this contain the ground of temporal succession in general, but we may deduce from it, for each and all of the stages of historical development, the strict and complete formula which constitutes the explanatory principle of all the peculiar features of these stages; finally, this law teaches us to understand not only that progress which is the rule, but also the strange retrogressions and eddies by which the continuity of this progress seems to be interrupted.

But in our opinion this last-mentioned service is *not* rendered by the view now under discussion; the fact rather is, that the way in which it admits incalculable chance and arbitrary will in history alongside of the strict development of the idea of humanity, is that which first gives us occasion to test the validity of its confident assertions.

With regard to all phænomena we feel that we have a twofold task—we have to explain step by step the possibility and mode of their occurrence, and we have to unravel the rational signification which is the justification of their existence and of all the assumptions which they presuppose. The philosophical view which gives rise to the above-mentioned conception of history, does not conceal its conviction that the Meaning or the Idea, to the realization of which every chain of events and every creature is destined, constitutes its real being, and that to search out this innermost fount of life is the supreme task of all (even of historical) investigation. But it cannot at the same time conceal—however willing it may be to do so—that it lacks a definite notion of the relation of the Idea to the practical means of its own realization. It must allow that all which happens in history is only brought to pass by the thoughts, feelings, passions, and efforts of individuals, and that the ends towards which all these powers with their living activities are striving, do not by any means necessarily coincide with those towards which the development of the universal Idea tends. And the only addition which in the last resort it can make to this confession is that the Idea does yet prevail—nay, does on the whole ex-

clusively prevail — notwithstanding, and in, and with, and among all these confused, conflicting, and discordant struggles, whose powerlessness easily leads to contempt for that which thus cannot be turned to account. Hence this view has in fact often enough declared that individual living minds really count for nothing in history, that they are but as sound and smoke, that their efforts, in as far as they do not fall in with the evolution of the Idea, have no worth and significance in themselves, and that their happiness and peace are not among the ends of historical development. The course of history is as the great and awful and tragic altar on which all individual life and joy is sacrificed to the development of the universal Idea of humanity. And it is just here that we find the expression of the essential difference which distinguishes this view from the preceding one, with which in other respects it has so much in common. He who speaks of education naturally means the education not of a concept, but of some living thing which is only marked out and named by the concept, and which alone could be capable of rejoicing in its own development. This interest in an attainable good which history is to realize, and in a realm of living creatures who can enjoy the happiness of this realization, we must, if we have not got rid of it already, learn to sacrifice to our veneration for the Ideal-development theory.

How much we have it at heart to oppose this theory will be readily understood. Above all, we must note that only he who would reverence history as an enigma without seeking for its solution, can be satisfied with the mysterious concord between what is required by the evolution of the Idea, and the results of individual efforts which are independent of it. On the other hand, he who looks for a solution may take either of two courses; whichever of these he may choose, he is bound to begin by stating clearly who or what the mind of humanity is of which history is the development, and where this mind is to be found.

The first course begins with the statement that it exists only in the countless multiplicity of living men, contemporaneous and successive, of whose nature it is the common feature, and that

it has no independent existence outside of, among, or beside them. From an analysis of this general character of humanity (for this is what the present view comes to), and at the same time of the external conditions presented by the earth as the stage of life, we should deduce the consequence that the kind and degree of civilisation which would furnish the greatest possible amount of development and satisfaction of all human capacities would not be attainable in the course of a single life, but only in a series of generations of which each would start in its course from the stage of development reached by that which had preceded it. Then we should bethink us that this development would be worthless if it took place with the unfailing regularity of a natural process, and that living minds were not formed to realize a steady progress determined in complete independence of any free choice on the part of the agents, even supposing that such a progress were in itself desirable. We should expressly point out the unconstrained freedom of all the living elements, the action and reaction of which does, notwithstanding, form the foundation of a steady course of history. Now natural science sometimes shows that the irregular minute and conflicting molecular movements of a mass not only do not affect the uniform molar movement of the whole, but are, for intelligible reasons, incapable of altering it. In the same way we should have to show that the irregular will of the individual is always restricted in its action by universal conditions not subject to arbitrary will—conditions which are to be found in the laws of spiritual life in general, in the established order of Nature to which this life is bound by its immutable wants, and finally, in the inevitable action and reaction between the members of a soul-endowed community. This problem is not new, nor have there been wanting attempts at its solution. Indeed, this is the sense in which the calm and practised observer of men and things is accustomed to understand history. By the nature of men's minds, which is always essentially the same, by the sameness of their needs, and by the constant similarity which exists between the circumstances of different lives, an

obstacle is, sooner or later, opposed to the flood-tides of caprice, and only those less violent movements can continue which correspond to these conditions with their gradual changes. In this view, then, history is regarded as a development of the concept of humanity, not only in the self-evident sense that nothing can happen in the course of history which did not pre-exist as a possibility in the general character of the human constitution, but also in the sense that in general and on the whole only those phases of development are durable and succeed one another which correspond to the destiny which is appointed for the spirits of men.

The view which we are combating scorned this course. It was unwilling to regard history as merely the result of a multiplicity of forces working together; it preferred to consider it as proceeding from the unity of a single impelling power, pervading the whole course of historical development. In that case the mind of humanity, of which history is to constitute the self-development, must certainly be differently defined. It will not help us here to give it the name of Infinite, or Absolute, or the Universal World-Spirit, in as far as this, being engaged in the more comprehensive work of its own development, takes on the form of human existence in order to pass through the series of phænomena which are necessary to it at this stage of its course. For if this world-spirit is dispersed about in innumerable individual men without existing complete in any one of them, how can it guide the reciprocal action of all these (for their power of free choice is not to be denied) in such a comprehensive fashion as to bring about a development conformable to its own concept? It would clearly contribute to this result in as far as it is present in all individual men as that mental organization which is common to them all; but it would thus only *confine* their development within the bounds of what is possible for such a constitution, without positively marking out the course and the definite forms of the development. If more than this is intended, the higher unity of history can only be reached if that one spirit which ought, with deliberate

forethought, to pervade history and to interpenetrate it with the unity of its own aim, is regarded as being in truth an actual living spirit, having an existence of its own, among, or beside, or beyond, or above individual spirits, and not involved in the necessity of their development as being the substance which undergoes development, but enthroned above them as the power by which they are produced. In other words, this second path leads back to the idea of history as a divine education of mankind, as on the first path we were led to regard it as a natural process in which everything happens which logically results from previous circumstances. The doctrine of the realization of the Idea in history appears in these two distinct modes of thought; but the adherent of the doctrine will doubtless continue to maintain that it presents not a confused blending of the two, but their combination in a higher speculative unity.

But in sober truth this view, with its low estimation of individual life as compared to the development of the Idea, gives us but a stone in the place of bread; and we must consider this point more in detail, since we foresee that very many will be honestly inclined to profess the opinion which we censure. There are no errors which take such firm hold of men's minds as those in which, as in this, inexactness of thought and lofty feeling combine to produce a condition of enthusiastic exaltation.

For clear knowledge it is necessary that to every concept we should add in thought all those connections without which its meaning would be unintelligible; but owing to the eager haste of thought and speech these connections are very commonly passed over unnoticed. In our varied and complex civilisation there are many thoughts which seem to have a stamp of intellectuality and a certain striking elegance and simplicity, because they detach from the soil of common experience and transplant as it were into empty space, apart from all explanatory surroundings, ideas familiar to us in everyday life, where we observe, patiently and minutely, all the conditions on which their validity depends. This fate

has overtaken the idea of *phænomenon* or *appearance* among others. It is plain that in order to be intelligible this idea must presuppose not only a being or thing which appears, but also, and quite as indispensably, a second being by whom this appearance is perceived. This second being may be called the necessary place of the appearance, for nowhere except in it does the appearance take place, being never anything else than the image which the perceiving being, in accordance with its own nature, draws for itself, of that other by which it is affected. But this reference is almost wholly suppressed in ordinary speech; and when being and appearance are contrasted, nothing is thought of but that one being which emits the appearance as an emanation from itself—the emanation being supposed to exist and appear on its own account, without needing a second being, as a mental state of which only can it attain reality.

Of course any mode of speech is harmless if men understand what it really indicates, and limit its applications and the deductions from it accordingly; but both this understanding and these limitations are wanting in the present case. What is called phænomenon or appearance is at bottom only the process which may become, or may cause, a phænomenon as soon as it affects a being capable of perception; this process is not the phænomenon itself. Now to the true notion of phænomenon there attaches a value which can by no means be transferred to the process which precedes it; that a being not only exists, but exists for another, is not merely a fact like other facts, but includes an element of pleasure; it seems to us that the worth of a being's existence (though not, of course, that existence itself) is heightened and doubled when its image is reflected in another, or when, speaking generally, its content is not only there, but is recognised by some mind and is advanced to be the object of some enjoyment, though it may be only the enjoyment of understanding. He who asks, Would a being exist if it did not appear? can hardly mean merely that the real existence of a thing consists in its going out of itself, and in the emanation from it of an activity that

is directed outwards. This going out of itself will rather be understood as an emergence from the deafness, and blindness, and night of a state in which it is uncognised and forgotten, into the full clear day of awakened consciousness, of being named and being known. For the poetical apprehension of Nature the rising of the sun does not merely mean that the sun which before was below the horizon now rises above it; it means also that it becomes itself visible and renders other objects visible, and floods the world with an enlightenment which, since it makes all things exist for one another, itself constitutes day and awakening, and in fact the full reality of that which before was, as it were, only potential. In the same way, that *appearance of a being*, which we value and of which we speak as of some great good, signifies always the entrance of something real into a consciousness which takes pleasure in it. *This* kind of appearance cannot be conceived as the mere emanation of some being from which it flows forth as a medium that shines by its own light—a kind of light, in fact, the business of which is to give light to itself and to the darkness, and of which this philosophy knows so much, and optics nothing whatever. For an error it is and will remain to treat that shining of light which exists only in the perception of the percipient, or that semblance which exists only in consciousness, or that pleasure in a phænomenon which can be found only in conscious perception of it—to treat all these as if they were occurrences that could take place in empty space, merely proceeding forth from one being without being received into any other.

Here we have to renew our old conflict with this mode of thought. He who sees in history the development of an Idea is bound to say whom this development benefits, or what benefit is realized by it. I do not, of course, mean that there should be merely pointed out to us in the later stages of development, as the fruit of such development, some blessing which was not previously extant, but that we should be shown that the higher good consists in the previous absence of this blessing, and in its gradual attainment by way of this

evolution. But if we agreed to find enough happiness in the mere spectacle of a developing Idea, and to renounce any further advantage to which it might conduce, yet even the review of these thoughts as they march past would presuppose a world of spectators by whom it would be witnessed. Who, then, are the spectators? Either mankind themselves while they are developing are conscious of their development and enjoy the pleasure of this consciousness; or God alone surveys history while mankind undergo it unconsciously; or finally, there are individual human souls which are conscious of the historical progress of the Idea, while the rest only experience it as their fate and their lot in life.

The first of these answers cannot be given. Unquestionably mankind have in every age had some notions concerning their own being and their destiny, notions which have come to them from the conditions in life and the experiences which fell to their share. We would not scorn these notions because they do not constitute a collective consciousness, but merely an energetic mental bent which at the most is only intensified to full reflection on particular occasions, and even then only to one-sided reflection. But the mass of mankind remain quite ignorant of the historical foundation of this feeling which pervades their life, and of its significant place in the whole of historical development. Obscure traditions of the "good old times," or unsatisfied longings for a better future, unsupported by any knowledge of facts worth mentioning, are all the philosophy of history with which the majority are acquainted; the subtle succession of the different phases of development of the historical Idea is displayed quite without effect as far as the consciousness of mankind on the whole is concerned.

The second answer will be more readily given and more willingly received, because it is apt to be understood as being better than it is. For what view is there that might not join in the modest confession that it is God alone who perfectly understands the meaning of history? But more than this is involved. History being understood as the development of

the concept of humanity which is cognizable by God alone, it must also be the case that this development alone is the end and aim of history, while all which finite beings do and suffer, hope and fear, strive for and avoid, attain or fail of, is but as part of the machinery and trappings which the divine mind employs in order to bring before its own view this spectacle of the evolution of the concept. I know that no one will lightly profess this view in its undisguised repulsiveness as his own conviction; still in reality it is to only too large an extent at the foundation of philosophies of history. It is not indeed conceivable that in surveying the tragic course of events the soul of the observer should remain wholly unsympathetic and not be, at least occasionally, surprised into warmth of feeling; but how often have we been admonished to rise superior to the softheartedness of this sentimental mode of regarding history, and to learn that it is only the necessary progress of the concept that is of consequence, and not the happiness or misery of men! And further, what is repulsive in the picture which we have drawn is certainly less striking from the fact that it is seldom God who is spoken of as the spectator of this show, but generally a World-spirit, or an Absolute, or a self-conscious Idea. The unbearableness of an egoism which could use a world of sensitive creatures merely as material for its own refined amusement is, of course, softened when the nature of the egoist is so obscurely conceived, and so removed from all similarity to ourselves, that we are left without any standard for the estimation of moral worth. And for the rest we gain nothing by this change of expression. For an inscrutable impersonal primal being in the place of the living God might indeed govern the world and us as a supreme power, but could not be the source of any obligations or any duties. Therefore the assumption of such a being, even if it really explained the external course of history, would deprive the inner development of history of a most effective spring. For however large a share chance may have had in determining the course of events, something at any rate is due to the honest efforts of mankind who with

a sense of sacred duty towards posterity have laboured to preserve and to increase their possessions. If we were forced to believe that all personal life is but a stage of development through which an impersonal Absolute has to pass, we should either cease our efforts, since we could discover no obligation to co-operate in helping on a process totally indifferent both in itself and for us, or—in case we held fast the treasure of love and duty and self-sacrifice of which we find ourselves possessed—we should have to confess to ourselves that a human heart in all its finitude and transitoriness is incomparably nobler, richer, and more exalted than that Absolute with all its logically necessary development.

We may pass over the third answer very briefly No one can seriously believe that history takes place in order that it may be philosophically understood by philosophers; the fact is indeed that there is not even a philosophy of that which has taken place.

But there is another consideration which will be opposed to our rejection of all these answers. An Idea, it is said, not only exists in the consciousness of him who apprehends it or reflects upon it; it is also really and effectively present in things themselves and their connections. It is present as an existing condition before the attention of thought, which comes later, has been directed to it; and it is plain that it would continue its previous existence, and that its validity would suffer no detriment, even if the gaze and the reflection of a thinking being should never be directed towards it, making the content of the Idea an object of its own consciousness. If, therefore, only a few individual minds, or even if no one at all, were conscious of the Idea which is operative in history, it would nevertheless continue to exist in order that, unconscious and unknown, it might guide the destinies of the human race. Mankind as a whole would then be comparable to an individual man who is unceasingly conscious of pain or pleasure, or some other sensation resulting from his bodily organization, without knowing the Idea or plan in accordance with which the

forces of his organism are combined to reciprocal action. We ourselves, however, may be compared to physiologists who investigate the laws of this action, and we should not regard the Idea which orders the system of vital functions as being the less efficient or the less worthy of investigation because the living man generally remains unconscious of it, and because it was unknown to us up to the moment of its discovery.

This analogy, which is a just one, needs only to be pursued in order to refute the objection which it is brought forward to support. For surely we should hardly hold that those relations of organic forces can, while they remain hidden, constitute the aim of life, or that the living body is destined merely to realize ordered activities working altogether in obscurity. In the sensations which we experience in some way not yet understood, in the pleasure and displeasure which are the final result of some secret action of our organs, in the supple activity of our limbs, and the joyous sense of that power over them which is ours we know not how—in all this it is that the life of the body consists. On the other hand, all that unknown activity is to be reckoned as part of the mechanical means which exist, not on their own account, but in order that these higher results may be realized. In this sense the secret development of an Idea may indeed be considered as the guiding clue of universal history, and this clue may remain for ever unknown, provided only that the succession of benefits which are attached to it, and which go on increasing, are enjoyed and known. But a view which accepted this interpretation would not differ essentially from that which regards history as resulting necessarily from the co-operation of the spiritual nature which is in us and the material conditions of life which are without us. It would be distinguished from the latter view by only one peculiarity, and that one of very doubtful value—it would believe, that is, that the manifold impulses which have their source in the human mind, and are operative in history, can be comprehended under the one name of the *concept of humanity*, and that the separate investigation of those gradual changes which

these impulses undergo in course of time, may be replaced by the one general formula of a development, assumed to be logically necessary, of that concept.

But just this interpretation, which we allow, is by no means contemplated by the views referred to; they imagine that they have found in that hidden self-development of the Idea not a serviceable means, but the final sense and aim of historic evolution, not a guiding thread on which are gradually strung the substantial goods of life, but the Supreme Good itself. And to this we must unceasingly renew an opposition often offered before. In the order of the world a never-to-be-explained mystery may possibly shroud the *means* used to attain the ends aimed at, or the *laws* in accordance with which these means work; but it would be the most preposterous form of mysticism to suppose that there could be *ends* in the universe which, although no one knew of their content or fulfilment, should yet continue to be ends, or blessings which were so mysteriously hidden that no one could observe them or rejoice because of them, and which should yet continue to be blessings, and indeed to be the greater and more sacred the less this incomprehensible veil was ever lifted from them. That which is to be a blessing has its sole and necessary place of existence in the living consciousness of some spiritual being; all that lies outside of spirits, external to them, between them, before them, or after them, all that is mere matter of fact, or thing, or quality, or relation, or event, belongs to that impersonal realm, through which indeed the way to blessings may lie, but in which blessing can never be. As long as we have breath we will strive against this superstition, which though so calm is yet so frightful, spending itself wholly in veneration of forms and facts, knowing nothing whatever of true, warm-hearted life, or overlooking it with incomprehensible indifference, to seek the innermost meaning of the universe in observing a secret etiquette of evolution. And yet how often do we encounter this superstition! We have seen it shrink back—like a sensitive plant at a touch—when natural science has cheerfully enlarged upon all the efficient

means upon which depend the joyousness of animal life, its abundance of physical satisfactions, its sense of vigour, its joy in the varied changes which it experiences. What this superstition thinks of importance is not that there should be a vigorous, joyous, self-conscious reality, but that there should be a show—that everything which exists should recall symbolically something which itself it is not, should ring in unison with activities which it does not exercise, with destinies which it does not experience, with Ideas of which it remains ignorant. And when in history the rich-hued ardour and passion of human life are unfolded before the adherents of this doctrine—the inexplicable peculiarities of individual minds, the disturbing complications of human destinies which, in many respects alike in their outlines, are yet inconceivably various in their individuality—when this great picture is opened before them, then they rise up and ask if there is no way of reducing this grandeur back to something poor and small—of reducing *back*, in sober truth, for we go backwards and not forwards if we allow the tedious emptiness of a logically necessary development to be imposed upon us as the final meaning and end of the universe. And therefore will we always combat these conceptions which acknowledge only one half, and that the poorer half, of the world; only the unfolding of facts to new facts, of forms to new forms, and not the continual mental elaboration of all these outward events into that which alone in the universe has worth and truth—into the bliss and despair, the admiration and loathing, the love and the hate, the joyous certainty and the despairing longing, and all the nameless fear and favour in which that life passes which alone is worthy to be called life. And yet no doubt our combating will be wholly in vain, for those whom we oppose will ever seek afresh to cover the imperfection of their ideas with the cloak of a generous putting aside of self; they will always be ready to profess anew that there is a meaning in saying that phænomena *happen* even when they are not seen, that symbols *are emblematic* even when no one understands them, that Ideas are expressed by matters of

fact even when there is no one upon whom the expression could make an impression. This sounding brass and this tinkling cymbal will ever be struck anew; or rather this brass which does not sound and this cymbal which does not tinkle, for sounding and tinkling have their purest and highest value for this mode of thought, when considered as what they are in themselves when no one hears them.

§ 4. But are we not mollified by another conception, which does justice to the incalculable variety and wealth of history and redeems it from the poverty-stricken condition of being a mere logically necessary development of a concept, and according to which history is a divine *poem*, produced by God's creative fancy, with the spontaneity and life of a genuine work of art? One might be in doubt as to the class of artistic productions among which this poem should be reckoned; to some it has seemed to have the uniform flow of an epic, to others to be as full of catastrophes as a tragedy; again, it has not unfrequently been regarded as a comedy by mocking philosophers in sardonic moods; and each of these views has seemed, to those who held it, to have something in it. Meanwhile it is plain that the phrase contains, in the first place, merely a comparison of the impression made upon us by history with the similar impression which we receive from poetry. The peculiar character of the impression is made clearer by the comparison, but not so the causes by which in both cases it is produced. Perhaps we might more justly and more usefully make the converse statement, and say that poetry derives its power from its similarity to history. For art is never a mere playing with forms; it is true and genuine only when we recognise its forms as the same as those upon which the cosmic order is based, and according to which those events happen which, taken as a whole and in the breadth of their simultaneous complications as well as in their temporal succession, are just history itself. Because the epic brings before us with simple clearness this vast and wide and variously agitated stream of human destinies, without offering instructive solutions of particular difficulties, it has

the same effect upon us as history itself, which with equal reserve hides the secret of its whole significance under a series of sharply defined events which stand out in strong relief.

So far the comparison of history with poetry is nothing more than a graceful play of thought, going from one unknown to the other, and expressing each in terms of the other without really making either of the two more plain. But the comparison has something more in view. It aims not only at comparing the finished poem with the course of past history, but also at comparing the production of the work of art by the imagination of the artist, with the origin of history, due to an equally incalculable spontaneity of the divine mind. Something would indeed be gained if the essential peculiarity of that artistic imagination could be defined in a way that might be understood without again having recourse to imagination. We do not know that this has been done. For if we consider the information which we have concerning this mental activity—concerning the spontaneity with which it produces what is fair and what is repulsive, inventing examples of the application of necessary laws with boundless licence —concerning the perceptible justice with which it proceeds in the combination of these arbitrarily constructed events, without our ever being able to take a comprehensive and intelligent survey of the whole—we find that in these characteristics and others which have often been noted, the mystery of history is reproduced in all its features, only it remains, unfortunately, just as much a mystery as before. We receive no enlightenment with regard to the origin of this divine fancy or its ends, nor with regard to the way in which the conception of it may be combined with our other ideas of God, or with the rest of our philosophy. Therefore, though we willingly agree with this view in what it denies, we are in no wise enriched by what it affirms.

§ 5. And now, after so many vain attempts to interpret the progress of history, we will consider that opposite opinion which altogether denies history in the sense of a progressive development on earth. This view, too, is by no means a mere

peculiarity of mistaken thought, making a casual appearance now and again; in ancient as well as in modern times it has reached the point of the most pronounced aversion to everything mundane, an aversion which has been enthusiastically carried into practice. Innumerable heathen penitents and christian hermits have retained in their solitude a deep and pervading conviction that human life on earth does not, as a whole, progress towards any ideal of perfection which is here either attainable or even only aimed at, but that everything is vanity. They regarded only the constant and unmediated return of the individual heart to God, and its exaltation to the supersensuous world as progress, and all other earthly life as but a continual repetition of the old imperfections. This, too, is a philosophy of history. It is probably based upon less profound combinations of thought than the opinions which point to a progress which is supposed to be perceived; but, on the other hand, innumerable sacrifices have proved it to be a most living conviction, and it will continue to receive fresh proof of the same kind; for it is ordinarily our last confession when we depart from life and leave behind us all the plans, the carrying out of which once seemed to us a work of such greatness and importance.

Shall we give ourselves up without reserve to this denial of earthly good? Would there not hence result an inactive contemplative disposition which, by causing too early a renunciation of all mundane gain, would abolish the conditions of struggle after that which is supramundane? Such retirement from the world is conceivable only as retirement from a world which one has known, from a life in which one has participated. It is only a remembrance of the wealth of mental life, of the happiness and misery, the hopes and illusions, which the social interweaving of human efforts includes and produces, that can afford to solitary contemplation an object of reflection in considering which it may develop its ideas concerning the supersensuous life. He who has experienced nothing is made no wiser by solitude, and communion with the phænomena of Nature, and with the thoughts which would

be possible for a mind altogether withdrawn from human society, could lead to no better peace than that which the inferior animals possess.

But, as a matter of fact, it was not inevitable that depreciation of what is earthly should be intensified to such contempt for all living activity. Men may recognise that the social relations of human life offer the sole though intractable material by elaboration of which they are enabled to work out the ideals towards which they struggle and aspire; and this recognition may lead them to devote themselves with all their heart and soul to the tasks of earthly existence. We show the perverse pride of human exactingness in only taking pleasure in work, and only valuing it when we are assured that the results of our activity will hold a lasting place in the history of the universe, and will have imperishable value. If we estimate more modestly our performances here, regarding them as mere prentice work, then we can in all seriousness combine with the preparation for a higher end that calm resignation which will patiently endure that our attempts here should be without progress or lasting results. In proportion, then, as we estimated more highly the immediate relation of each individual soul to the supersensible world, the value for mankind of the coherence of history would sink; history, however it may move forward or fluctuate hither and thither, could not by any of its movements attain a goal lying out of its own plane, and we may spare ourselves the trouble of seeking to find in mere onward movement upon this plane a progress which history is destined to make not there, but by an upward movement at each individual point of its course forwards.

And, it is asked finally, is it not this unhistorical life that is actually lived by the greatest part of mankind? For the unrest and variety of revolutions and transformations, the meaning and connection of which we are seeking, is yet, when all is said, the history of the male sex alone; women move on through all this toil and struggle hardly even touched by its changing lights, ever presenting afresh in uniform fashion the

grand and simple types in which the life of the human soul is manifested. Is their existence to count for nothing, or have we only for a moment forgotten its significance in scholastic zeal for the Idea of historical development?

By such considerations the inclination to an unhistoric conception of human destiny is strengthened; still this does not overcome the opposition of a moral sentiment which warns us against giving up everything that we cannot understand, and admonishes us to esteem the temporal advance of history as a real good. Even that which holds us back from this recognition, when we are considering its course scientifically—that is, the unequal distribution, among successive generations who know not one another, of an ever-increasing quantum of good—is not felt as a misfortune in actual life. On the contrary, that universal absence of all envious feeling towards future generations which coexists with so much selfishness in detail, is one of the most noteworthy peculiarities of the human mind. And not only do we not in the slightest degree grudge to this future the greater happiness of which we ourselves can only have a prophetic foretaste, but it is further the case that a vein of self-sacrificing effort for the establishment of a better condition of things in which we ourselves shall not participate, runs through all ages, having sometimes a noble, sometimes a commonplace aspect, at one time appearing as the conscious devotion of affection and at another as a natural impulse, unconscious of its own significance and of any definite aim. This wonderful phænomenon may well tend to confirm our belief that there is some unity of history, transcending that of which we are conscious, a unity in which we cannot merely say of the past that it is not—a unity rather in which all that has been inexorably divided by the temporal course of history, has a co-existence independent of time; in which finally the benefits produced in time are not lost for those who helped to win but did not enjoy them.

This view will certainly not escape the reproach of marring one of the fairest traits of human character by assigning to it a basis of selfishness; nor will it at the same time escape the

suspicion of demanding from human hearts the magnanimity of motiveless self-sacrifice when such self-sacrifice results from love for others or for mankind without any thought of selfish advantage. But these reproaches would show a misunderstanding of the subject under discussion. We, too, would hold such a thought of selfish gain far removed from the motives of our action, but we cannot in the same way exclude it when we are considering the structure of the universe. While we lay great stress upon maintaining the principles of our conduct in all the purity of unselfishness, we feel it equally important that the world itself should appear to us as a significant and worthy whole. We require our own happiness, not for the sake of our happiness, but because the reason of the world would be turned to unreason if we did not reject the thought that the work of vanishing generations should go on for ever only benefiting those who come later, and being irreparably wasted for the workers themselves. All human longing to find a guiding thread in the confused variety of history springs from the unselfish desire to recognise a worthy and sacred order in the system and course of the world. This longing has impelled some who held different views from ours to sacrifice the substantial happiness of all individuals to the constant and uniform development of a universal; but as we regard such attempts as a misdirection of thought, we are impelled by it to the opposite demand for a lasting preservation of that, the continual destruction of which would render fruitless all effort to develop even the universal itself. Each, in order to keep his own thought pure from selfishness, may exclude his own happiness from this demand; but he cannot avoid requiring the preservation of the happiness of others, unless the world itself, and all the flourish about historical development, are to appear as mere vain and unintelligible noise.

This faith, being the interpretation of the results of historic life, is connected with the self-sacrificing and provident love which is the noblest spring of that life. The presentiment that we shall not be lost to the future, that those who were before us though they have passed away from the sphere of

earthly reality have not passed away from reality altogether, and that in some mysterious way the progress of history affects them too—this conviction it is that first entitles us to speak as we do of humanity and its history. For this humanity does not consist in a general type-character which is repeated in all individuals, no matter how many they are, or have been, or shall be; it does not consist in the countless number of individuals who are only brought together by our thought into a unity which they have not in reality, since as a matter of fact they are dispersed and some would still be if the rest did not exist; but it consists in that real and living community, which brings together into the reciprocity of one whole the plurality of minds which are separated from one another in time, and in the particular place of each in that whole being marked and reserved beforehand, just as though the whole number had been already reckoned over. And history cannot be a mere slender ray of reality slipping on between two abysses of absolute nothingness, past and future, ever consigning back to the nothingness in its rear that which its efforts had won from the nothingness in its van; there must be a pre-established sum, in which the flux of becoming and of vanishing away is consolidated to permanent existence. Where the human mind fortifies itself in its efforts by an appeal to the spirits of ancestors or to future renown, it does it with this idea; an appeal to what is non-existent is powerless—no appeal can be of any efficacy which is not strongly penetrated by this thought of the preservation and restoration of all things.

Such a faith is not easy in all ages. As long as the limited purview of mankind embraced only the near distance of a known past and the familiar surroundings of home and clan, there was a powerful attraction in the thought that this simple life, bounded at the one end by creation and at the other by the last judgment, was a probation at the close of which would begin the happy communion of all those who had been divided from one another by the lapse of time. Our extended intellectual horizon embraces a multitude of unlike nations,

the indefinite ebb and flow of a far-flowing historical stream, the ever uniform working of Nature, and the immeasurable extent of the universe, and we can neither be satisfied with such a brief and homely solution of complications which have become infinite, nor can we find some different conception capable of meeting our own more exacting requirements and giving a clear representation of the ideal of which we are conscious. Yet, notwithstanding, we hold fast the primitive faith, and do not find that we can replace it by explanations which have seemed more acceptable to the culture of our age; on the contrary, it is only by presupposing the truth of this belief that modern views can free themselves from the internal contradictions in which we found them involved. For no education of mankind is conceivable unless its final results are to be participated in by those whom this earthly course left in various stages of backwardness; the development of an Idea has no meaning unless all are to be plainly shown in the end what that development is of which in past time they had been the ignorant subjects. He who seeks a plan in history, will find himself inevitably compelled to acknowledge this faith; he alone can feel no need of it who sees in history nothing but examples of universal laws of action, each example due to the impulse of anterior forces, and not to the attractive power of ideals as yet unattained.

But in truth our presupposition suffices only for the removal of inner contradictions; neither it nor our empirical knowledge makes it possible for us to exhibit the plan which history follows. Not our empirical knowledge; for we are well aware how small the sum of our knowledge is when compared with all the wealth of life of which our planet has been the scene, and how little the fragments which we know make us capable of discovering the path that may have been taken by the course of earthly history as a whole. And if we did know all this which we do not know, it might still be doubtful how far this earthly life could be understood as a whole in itself and without needing the help of anything else to explain it; and our scientific insight is infinitely far from

penetrating all the ramifications of the connections by which it may be bound up with a vaster universe, which perhaps contains material for its completion. Thus history still seems to us, as it has seemed in all ages, to be a path which leads from an unknown beginning to an unknown end, and the general views as to its direction which we believe we must adopt, cannot serve to indicate the course and cause of its windings in detail.

# CHAPTER III.

## THE FORCES THAT WORK IN HISTORY.

Theories as to the Origin of Civilisation—Theories of a Divine Origin—Organic Origin of Civilisation—Instance of *Language*—Importance of Individual Persons—Laws of the Historic Order of the World—Statistics—Determinism and Freedom—Uniformities and Contrasts of Development—The Decay of Nations—Influence of Transmission and Tradition.

§ 1. EVEN in antiquity reflection was in many ways directed to the origin of that ordered life, in the enjoyment of which men then found themselves, and there appeared even then the same extreme views by which opinion is now divided. Human civilisation as a whole seemed so wonderful when first apprehended that its origin appeared incomprehensible except as an express divine institution. Pious legends very early sought to find in the benefactions of the gods the source of the commodities of human life, partly of those whose origin is still an enigma to us, and also of many others which would not seem to us to exceed the reach of easily comprehensible developments of human powers. The sense of the evil in society came to strengthen the melancholy notion of a past Golden Age in which there lived innocent men, with simple hearts, at peace with each other and with the world, under the protection of the gods, until growing knowledge of the world brought coveting and strife—or perhaps it was that these latter awaked men's slumbering capacities for knowledge. With this picture of a fair beginning and an ill continuance was soon contrasted that of an origin of brutal savagery, from which mankind, schooled by suffering and experience and making good use of their lessons, gradually advanced to the rich complexity of their contradictory, wonderful, ill-fated civilisation. Both conceptions have

been repeated with innumerable modifications by succeeding ages; generally with a leaning to assumptions which interfered with impartiality of judgment.

Even the old view, which opposed the theory of earthly development to that of divine origin, set out from declared hostility to all religious contemplation; the rationalistic *Enlightenment* (*Aufklarung*) which long governed opinion in modern times, was equally prone to express depreciation of all which pointed to something more, in the dim beginnings of history, than lucky chances and the ingenuity of busy brains. This Enlightenment traced back the beginning of political life to a convention entered into by honest men of remote antiquity; language they traced to an agreement to use certain sounds as the most appropriate means of communication; the maxims of morality were attributed partly to a general recognition of the usefulness (accidentally discovered) of certain kinds of conduct, partly to the precepts of far-seeing teachers; and finally, the origin of religion was referred to men's natural inclination to superstition and the artful use of this by priestly cunning. In all this, deliberate calculations, such as are known only to a somewhat advanced civilisation, were made the producing causes of civilisation itself, by the Enlightenment—which thus failed in finding the solution of its problem. But it is not this failure, destined perhaps to befall other attempts of the same kind, which has sharpened the aversion of the present generation towards this mode of looking at history; it is the obvious endeavour to represent all this (which must indeed come to pass *through the instrumentality* of men) as though it were the arbitrary product of human action. We cannot, however, deny that the theory we are considering was due to real need of enlightenment although it sought to satisfy the need in a very inadequate fashion.

When the opposite view was revived, it exceeded all moderation and all necessity by connecting the early history of mankind with supramundane beginnings, in ways which could not afford the expected advantages even if motives for preferring them, which were absent, had existed. In combating these views

I would not refuse them the consideration which is their due. That historical life was preceded by a primitive state of moral holiness and profound wisdom, and that all succeeding ages were taken up with the decay of this glory and a struggle against the decay—such a wholly perverted view of history as this will hardly find advocates in the present day. But if there were such they need not be alarmed at the objection that it is only development from the less to the more perfect, and not progress in an opposite sense, that has all natural analogies in its favour. He who has once come to regard history as something more than a mere natural process, who has made up his mind to regard it as part of a great and divine plan of the universe, will also be secretly convinced that to understand its course something a little more profound may be needed than the simple formula of progress in a straight line. That course may perhaps involve many windings which are only dimly intelligible to us, but which if clearly understood would disclose a striking and living meaning of infinitely higher value than the barren conceit of a continuous advance uninterrupted by catastrophes. It is not in vain that various ages and nations have worked out, with devotion and longing, ideas of a fall from some better state of existence, of temporal life as a penance, and of a final reconciliation and restoration; by doing so they have borne witness that if the mind does not (thanks to material analogies) forget its own being and nature, it is capable of believing something differing widely from a progress which (having no loss to regret) is busied in producing with its own hands all the goods that it requires. But historical investigation, however far it has advanced, has come no nearer the discovery of the existence on earth of an ideal primitive state, and has in fact left it hardly disputable that our civilisation must have grown up from simple and indigenous beginnings along the path of a gradual and much interrupted development.

§ 2. Such an admission, however, does not exclude supernatural beginnings, only that in the place of an ideal

condition of primitive men there would have to be substituted the thought of a divine education by which men's natural powers should have been guided up to a point at which the species had become capable of its own further development. The addition, expressed or understood, of the opinion that from that time forth the divine guidance ceased, shows us that men imagine such guidance to have been exercised in primitive times in a more express and striking way than in that later progress of history which it is just as impossible to withdraw altogether from its influence. In order to estimate this opinion we will consider it as manifested in more definite views.

No one will attribute the beginning of human education to intercourse with angels who walked in visible form upon the earth. We find in primitive times, not infallible wisdom which could not have been acquired from a merely human standpoint, but signs of an active curiosity which sometimes hit and sometimes missed the mark; not a complete systematization of society which would seem referrible to divine arrangement, but simple forms of life easily explicable as the result of natural relations and natural sociality, and more complex forms presenting a very human mixture of pride and fear, cunning and violence; not a faith the otherwise unattainable truth of which must have come by revelation, but religions in which aspirations after an ideal had developed conceptions of very various worth; finally, no primitive speech of divine construction, but from the beginning a number of different manifestations of the common faculty of speech. Faultless perfection in all these cases might make it necessary to seek an explanation by reference to constant intercourse with superior beings; what we actually find, however — mental activity generally, inventiveness of intellect and vigorous constructive faculty, but not the exclusion of error — all this does not demand such an assumption.

But for this inapplicable conception may be substituted an influence of the Godhead upon the human mind just as

immediate though more hidden. We do not, it may be said, seem to find in the course of psychic life as at present constituted the conditions necessary for the initiation of a civilisation capable of being hereafter transmitted with ease. A state of the mental capacities differing generally from that which we now see must have been the basis of such a beginning, and this may perhaps have been transformed to the existing constitution of mental life by the very reactions naturally accompanying progress. This view takes two different and more definite forms, neither very probable. That the general laws according to which the events of psychic life are combined in men and animals were different in primitive times from what they are now (which is the one form), is a supposition that to us seems incredible, and that can in no case lead to any useful results. For other laws of the train of ideas, if not reinforced by other and copious sources of knowledge or by extraordinary mental activity, would either (1) not lead to new and otherwise inaccessible developments, or (2) would lead to developments merely strange and singular; they could not lead to those from which our historical civilisation has in fact grown up without any substantial interruption. And the same would hold of that other interpretation which sets forth that it is the moods, the inclinations, the receptivity, and the aspirations of the soul—which are subject to the general laws of mental life as being the living objects to which these laws apply—that it is these, and not the laws themselves, which were once constituted and combined in a fashion different from that which obtains in existing human nature. No doubt this significant psychic nature may be very different in different individuals, since its manifestations are not produced by general laws, although they are formally determined by such, and the development of their results similarly regulated; but he who would exaggerate the peculiarity of men's primitive, as compared with their present, mental state, likening it to the instinct of brutes, to demoniac possession, or to the twilight of clairvoyant somnambulism, forgets that what we seek in this primitive

condition is not wildly aberrant and extraordinary phæno-mena, but the beginnings of our own familiar development. Therefore, without denying that the mental life of the earliest antiquity may have been so different from our own that we cannot fully realize it, we yet hold that the assumption of unlikeness above referred to is not particularly useful even when kept within the limits of moderation, and that when carried to excess it is of no value whatever for the explanation of that which we want to have explained.

I am compelled to regard with the same scruples a view which seeks to find the *nidus* of that primitive mental condition specially in the religious life, or in God's presence in the devout consciousness of man. Certainly like-mindedness in religion is one of the most essential bonds upon which the union of a people can depend, and the greater the contrast between the faith of any people and that of their neighbours the more stubbornly often has such a nation kept itself uncontaminated. But we should not be justified in asserting that without the religious bond all other natural inducements to social life would only suffice at most to constitute a horde, not a nation. That language should have been the same for all mankind in primitive times is not made comprehensible, with regard either to its origin or its construction, by the supposition of unanimity of faith; and we are equally in the dark as to what must have happened for a division of faith (due to unknown causes) to have led to a confusion of tongues, through which new and varying appellations were given to all those objects of common life which were not in intimate connection with the sphere of religious thought. It is easy to give the general answer, that there is nothing so separate and isolated in human life as not to be affected by religious belief and its peculiar character. But if one is not satisfied with the vague devotional thrill caused by this indefinite expression of a true thought, one sees what degrees and proportions there are in this connection of human things with divine. Neither in life nor in science is it possible, necessary, or desirable that true religion should strive to exhibit what is

secular—the course of Nature and human freedom—as the immediate shadow and reflection of what is divine; that it should deny or grudge to these the comparative independence with which, by native strength in the first place, they produce their own special results.

§ 3. We have yet to glance at a view, a favourite of modern times, in which the idea of a mysterious beginning of human civilisation approximates to the thought of natural development. The rationalistic fashion of explaining every coherent department in the whole frame of civilisation as constructed out of a multitude of separately insignificant accidents and inventions, having fallen into disfavour as a caricature of mechanical action, it has become customary to ascribe the forms of society, the growth of morality, the construction of language, and the coherence of religious belief, to organic development. Two points become prominent when we ask what meaning can here be assigned to this term *organic*—for which a long defence will have to be made if at the last day account has to be given for every idle word. In the first place, that which has an organic origin, being withdrawn from the region of conscious invention and free choice which belong to us as men, is supposed to grow necessarily out of the innate constitution of our mental being. And on the other hand, that also which is realized in the intercourse of different individuals as an advantage of civilisation in which they all participate, is held not to result from reciprocal action of which they are conscious or which can be pointed out, but to be the immediate product of a mind that is common to them all.

Now the rule within us of an unconscious necessity needs no demonstration. Each individual sensation in us bears witness to it, for we do not choose what the sensation shall be with which we respond to the external stimulus; every feeling of harmony or discord which we experience is the involuntary expression of something that takes place in us without our comprehension or co-operation; if a melody to which we are listening is broken off unfinished, we are driven to seek for

its conclusion, not because we understand at all why the conclusion should be added, but because our soul, with uncomprehended power, struggles to emerge from the state of having begun some movement but not carried it out; and it must be in the same way that in the case of more complicated processes, causes of which we remain unconscious, arouse our efforts and guide them with sure and arbitrary power. Scientific research may perhaps some day succeed in clearing up these obscure processes; but however much may be accomplished in this direction, the difficulties connected with the beginnings of human civilisation would not be lessened thereby. These difficulties are to be found in the fact, not that a coherent whole of mental life is developed in the individual soul, but that such developments occurring in different souls coincide to form a common intellectual possession. And it is plain that those who can find the explanation of this in the notion of organic origin, labour under a delusion.

Let us look at language for instance. Each individual may be forced by an unconscious natural impulse to manifest his mental condition by definite sounds; but this manifestation becomes language only through the comprehension and recognition of the hearer. Now capacity of excitation, structure of thought, and connection of ideas, may be as like as you will in members of the same tribe, but this harmony would never impel them to choose with mechanical uniformity the same sounds for the same ideas, and the same inflections to express the same relations. For the spoken word is the immediate reflection not of objects, which are the same for all, but of the impressions produced by these, which are different for different individuals. Indeed, in the same individual the same stimulus does not produce at all times the same impression, owing to his varying moods; and language as it grew up would greet objects with ever varying names if the name once given did not blend so completely in our remembrance with the idea of the thing itself that later, even when we learn to know the thing from quite a different point of

view, the name recurs to us as one of its most constant and important properties. And certainly also, with whatever solemn obscurity we may imagine the organic speech-impulse to operate, every sound must have been pronounced for the first time by some individual mouth with lips thick or thin. Originally it belonged to him only who had framed it; it could only become common property when others divined its signification and repeated it with the same meaning. How this happens is shown in a general way by the ease with which children of very ordinary abilities master the materials of speech without express learning, and grow familiar with inflectional analogies. But the first origin of language still presents special and unsolved difficulties.

If a great number of individuals with equal claims to consideration had simultaneously taken part in its formation, there would have been a variety of quite independent names for some ideas, and hence a superfluity which would only have been reduced by the subsequent necessity of reciprocal intelligibility. This did perhaps actually take place to a certain extent; the heterogeneous store of roots which we find in languages may be the result of a mutual adoption and surrender of words formed independently by different men. The same simple idea seems to have been originally denoted by several distinct roots of different sound, which later (because the supply was in excess of the need) came severally to express the different shades of meaning attaching to the idea; thus it happens that there are not connected series of words coresponding to connected series of ideas in such a way as that, for instance, the names of colours should be more like one another than like the names of impressions of other kinds, or that the appellations of trees should have a greater etymological resemblance to one another than to the appellations of birds. This systemless incoherence of the material of language would indeed result if objects affected the linguistic imagination of a single individual not similarly, in as far as they were similar, but in a way varying according to accidental and varying conditions; and we see that if language grew from

the concurrent contributions of many persons, there must have been still more reason for this variety. It would have increased past all possibility of comprehension if (as we suggested above) the number of equally influential language-builders had been considerable.

But there is no doubt that language did not spring into existence like the statutes of a suddenly formed society, but that it grew up gradually within a family, or clan, or tribe; and that as one generation succeeded another in the natural course, the store of words already formed would be transmitted with the same authority as other traditional arrangements. The creative impulse soon dies out in any department when it finds patterns provided, by imitating which its wants may be satisfied. Therefore an existing word prevents others from springing up to express the same idea; or if they do spring up, they disappear like the numerous words invented by children, which are lost when their mode of thought grows into harmony with that of adults. So it happened that only so great a variety survived as resulted from a process of mutual accommodation between the contributions of those families (not very numerous) who had been independent constructors of language.

But in this way we reach merely a generally used store of words and not the grammatical construction of language. There are very many different rules for denoting different relations by compounding, blending, and modifying roots, and each of these modes, again, allows of course of an innumerable variety of applications. How among this abundance of possibilities a logical construction of language could have grown up is an enigma. Besides, one cannot believe that such a construction could be produced in short time and by few men; but if we allow a long time, this does not make it easier to understand how amidst the succession of different generations and among a very numerous people, just one single plan of construction out of the many possible, should have gained universal recognition and mastery. One would conjecture that in such a long course of time very many

varying attempts at construction would be made by many different persons, attempts which could hardly have been consolidated to the unity of one logical construction even by the compensatory process of mutual accommodation. But do we find this logical consistency existing throughout in the grammatical construction of language, or are there here too traces of a complex origin? Do not most languages make simultaneous use of different kinds of construction, using root-modifications together with prefixes and suffixes? Are there not various forms of declension and conjugation having all the same meaning and value? In this abundance of forms—forms which in all developed languages are the last to experience the transforming influence of the principle which has come to be predominant—we may perhaps find survivals of constructions which were originally diverse. Is the superabundance of cases, of tenses, and of moods really to be ascribed to an inexpressibly delicate sensibility on the part of those with whom language originated—a sensibility that from the very beginning and as it were at one stroke provided, with systematic completeness, for the expression of the finest shades of thought—or can we not rather trace in these various forms the remains of originally diverse attempts at formation of language, which attempts—since they held their ground—came as a consequence of their superfluity to be used for the denotation of those fine shades of thought? Recent progress in the investigation of language makes me feel more sure than I did formerly that many of the latter questions may be answered in the affirmative, and that many of the examples adduced may be really conclusive; meanwhile what I have said here is said not so much for its own sake as in order to explain what that is which we are seeking, and which a practised eye might perhaps really detect under other forms.

And however it may be in the special case of language, our assertion will yet hold good in general. The origin of every mental possession held by men in common supposes a period in which by reciprocal appropriation, surrender, and accommodation, the contributions brought by individuals and

resulting from an organic necessity of their nature, have become blended into one coherent whole. It is only individual living minds which are centres of action in the course of history; every principle that is to be realized and to become a power must be first intensified in them to individual activity, and then, through a process of reciprocal action between them, become extended and generally recognised. How commonplace this remark is—yet it almost seems as though through the unintelligent use of that comparison of organic origin we had come to think that, when language began, individual words fell ready made like snow-flakes from the atmosphere of a general consciousness upon the heads of individuals, or as if works of art, the results of national imagination, could arise like clouds in the sky and grow larger by the spontaneous addition of formless vapours.

§ 4. But this organic view of history would banish from human life not only the mechanism of reciprocal action, but with it also every element of chance. Among the most choice accomplishments of the theory is the demonstration (*post facto* indeed) that events must necessarily have happened as they did, and that being logically consistent developments of the spirit of the age they could not have been prevented by any exercise of individual free will. Now certainly no individual power can make itself felt in history unless it knows how to subserve some prevailing motive of action, or is capable of in some way alleviating human suffering. But on the other hand, those mighty men who through inventive genius or obstinate constancy of will have had a decided influence upon the course of history, are by no means merely the offspring and outcome of their age. In most cases the general spirit of humanity, the organic evolution of which we extol, has produced no more than a feeling of present pressure, a yearning mood, or a devout desire for change. It has stated the problems, a solution of which was wanted; but the fulfilment of these desires and the special mode of fulfilment are works the doing and desert of which belong to a few individuals. In other cases there

has not even been this precedent sense of helpless want, but the heavy unintelligent opposition of the majority has been laboriously overcome by the successful mental effort of a few, who have thus given to that majority new aims of action. And finally, where individual strength has actually taken up the tasks of the age, there has perhaps seldom been an exact accomplishment of what the moment required, no more and no less; in most cases there has been added much both of good and bad which, extremely effective in itself, yet went beyond the immediate need, or was altogether beside it. In innumerable cases the anticipated development has been interrupted; the skilful calculation of far-seeing minds has often been perverted by some strong tide of feeling from its original purpose, and for long periods been used for artful ends. Modes of thought which under appropriate conditions were adopted by men of genius, have withstood progress for centuries with incredible tenacity. Forms of art worked out by great minds, but not of universal validity, have continued to maintain their predominance when they had become out of harmony with the altered dispositions of mankind; and even in science inherited errors drag on like a slow disease. What we can thus observe now in history we would also claim as explanatory of its beginnings. It is of course true that all men had in early times similar capacities and wants, but all did not take an equal share in satisfying human impulses; the germs of civilisation did not, like the upward growth of a young forest, shoot forth simultaneously over wide extents with organic necessity and regularity, but the wandering, incapable, uninventive impulse of the whole was indebted to individual happy strokes of genius for its first distinct ideals and the first satisfactions which paved the way of its advance.

Meanwhile this influence of persons no doubt varies in magnitude in different domains of human activity, and according to the divergent characters of different periods and the multiplicity of conditions on which may depend the action and reaction between individual force and the mass of mankind. It is dependence upon Nature which most universally

rouses the inventive ingenuity of men, and the thoughts which here help them to obtain what is most necessary arise from such simple combinations of ordinary experiences that the elementary furniture which we find among the most different peoples — weapons, implements, woven stuff, and ornaments—is easily intelligible as the production of a general instinct without any special invention by individuals. But all those higher and more refined aids which have led to a more productive command over Nature, are connected with the names of individual discoverers; between its first beginnings and the period of universally diffused culture to which we are perhaps approaching, life has in this respect too had its age of heroes. And as in other departments so here also there is a gradual transition from one stage to the other. When any sphere of thought (as for instance Natural Science in the present day) has reached a grade of development which furnishes not only innumerable factual items of knowledge, but also general forms of investigation and clear indications of the regions in which answers to yet unsolved riddles must be sought, then the current of inquiry once set in motion produces in swift succession a multitude of useful inventions, which seem to spring from the general mind. This seems to be the case, because the multitude of individuals actively interested, and the vigorous action and reaction between them, throws into the background the particular contribution of each several person. Further, the general laws which science shows to be at the foundation of the vast commerce of modern times, are familiar to every one in their application to the simple relations of ordinary everyday life; the ill results of acting in opposition to them are so obvious in the case of individuals, that a great number of slight modifications of a man's course of action are the immediate result of any unsuccessful attempt on his part to contravene them. Thus it seems that the whole system of our arrangements for the satisfaction of men's wants goes on improving progressively by its own inherent force, and without needing to be pioneered by the inventions of individuals. Nevertheless these laws,

like all simple truths, become hard to trace when with increasing intercourse they have to be applied to a group of relations which are very numerous, and perhaps themselves either unknown or modifying one another after an unknown fashion. To have shown that these laws are valid, and how they are valid, even under such circumstances, is unquestionably a great achievement of science, and it has not been accomplished without help from the creative genius of individual persons. The arrangements of social and political life have also passed through the two stages of development which we are here distinguishing. The universal homogeneity of human nature and its wants no doubt lead in the first place with uninventive necessity to rules of intercourse which develop in the same way and succeed one another in the same order everywhere. But even if the purely indigenous development of a society could be left altogether to the organic interaction of its own individual forces, the political guidance of the society under difficult external conditions, and the choice of the right path at the right moment, would be always dependent upon the wisdom or folly of individual men. Hence it was that antiquity always set at the beginning of its political histories the name of some individual lawgiver, not that they might derive from the individual power of some master-mind, the first foundation of order—since this indeed could of necessity only be developed by means of the reciprocal action of a number—but that they might derive thence the first firm consolidation of that order, and such accommodation as had been arrived at, of difficulties occurring in the application of law to concrete cases. We scarcely need to add in conclusion, that though often ill-defined forms of enthusiasm seem to be of obscure origin, yet this is not the case with religions, which never appear in history without some founder; here too it falls to the concentrated strength of individual minds to satisfy wants which under similar circumstances are always alike among the homogeneous masses of mankind.

The incalculableness with which, for human eyes at least, individual greatness influences history may seem to threaten

the logical consistency of all historical development, and to reduce it to a continual fluctuation in different directions. Yet any personal power requires for its efficacy the receptivity of the masses; the want of this or the presence of a hostile disposition prevents the working out both of all the good and of all the bad effects which a remarkable mind tends to produce, and prevents likewise the realization of all the good exclusively, or all the bad exclusively; this is, of course, especially the case with respect to anything which is in opposition to the requirements of the hour, or foreign to them. The more active the reciprocal contact of men in society is, and the more intricate their exchange of thought, and the larger the bodies of men are among whom this contact and this exchange of thought prevail, the more are those circumstances changed by which the influence of individuals is conditioned. The scene of their possible action is certainly enlarged, but the probable magnitude of their influence is decreased with regard to all that is not a direct continuation or fulfilment of projects already begun and wants already felt. For it is only where this is the case that a man can reckon upon the collective strength of a public opinion and sentiment which has already taken into consideration all possible circumstances of life, and made up its mind about them somehow, and which is not likely to let itself be easily detached as it were from the soil to which it clings by so many roots, and carried away by the arbitrary will of a single individual into some new order of development. Thus as the ascendency of leading characters seems, even on an external view of history, to disappear as their number multiplies, there arises a general activity of stimulating and stimulated elements, presenting the appearance of organic growth.

§ 5. Now the more the wholly incalculable disturbances caused by free individual minds are in the end outbalanced by the opposing invariableness of that human nature which always remains the same, and those conditions of earthly life which are always alike, the more are we entitled to inquire for universal laws to which the historical course of things is

subordinated. The assumption of their existence is not incompatible with the idea of a plan by which history is guided. For though such a plan presupposes a unity of history, involving the condition that each member of the whole series can occur but once, and that no two are interchangeable, yet it may be that the above-mentioned similarity between all the subjects of human history, and the parallelism between the forces operating upon them, may produce resemblances between the course of one individual stage of development and another, while if we take the whole series we find that these resemblances are gradually repeated on higher and higher levels, and are thus really specially distinguished one from another. However, the attempt to mark out these resemblances according to general historical laws is very much impeded by the difficulty of determining the transforming influence which the peculiarity of each member of the series has on the course which we should expect to be taken by those events with which he is connected, if we were guided by the analogy of other examples. Hence, though history is so much extolled as the teacher of men, but little use is made by men of its teachings. Every age thinks that it must regard the peculiarities of its wants and its position as new conditions which abrogate the applicability of those general points of view that are due to the reflection of previous ages. And, indeed, many historical laws which have been spoken of are of very doubtful validity, and are hardly transferable from one period to another. They are often only applicable when all the conditions of the individual case from which they have been abstracted are restored; and when that is done they cease to be laws, and become mere descriptions of that which has happened under certain circumstances, and which we are by no means justified in expecting to happen again under similar circumstances. This inexactness appears in all cases in which people, without being able to go back to the separate effective elements of a complex event, attempt merely to discover the final outcome of the course of events, by a comparison of experiences in the gross; the inexactness can only

be avoided in these cases in the same way as in other cases. We want a Social Mechanics which can enlarge psychology beyond the boundaries of the individual, and teach us to know the course, the conditions, and the results of those actions and reactions which must take place between the inner states of many individuals, bound together by natural and social relations. Such a psychology would furnish us, for the first time, not with graphic pictures of individual stages of historic development and of the succession of the different stages, but with rules which would enable us to compute the future from the conditions of the present; or to speak more exactly, not the future from the present, but a later past from an earlier past. For even in the construction of ideals it is best not to be exalted above measure; we shall never bring any such mechanics to so great perfection as to be able by it to sway the future; it will be enough if it enable us to explain the concatenation of past occurrences when they have occurred, and if with reference to the future it establish probabilities, action in accordance with which is wiser than any other course.

Now it is natural that we should first seek to establish the rule of such universal laws within short periods, during which we may regard the whole sum of conditions upon which the course of events depends, and which we cannot analyse exhaustively, as an unknown factor which remains almost invariable. And here men think they have discovered that it is only where our view is bounded by a strictly limited horizon that the appearance of freedom and indefiniteness is presented to us; that if in dealing with events, we take large numbers and wide surveys, we find that not only does the physical life of mankind proceed with well-established regularity in life and death, in the relative numbers of both sexes, and in the increase of population, but that also the manifestations of mental life are determined by universal laws, even to the number and nature of crimes committed in equal spaces of time. Not indeed by immutable laws; for just as there is a slow change in the sum total of unknown

circumstances by which events are conditioned, so also there is an alteration from time to time in the formula which expresses the law of their occurrence. There is nothing, however, to prevent our conceiving of these very alterations of laws as themselves subject to another and more comprehensive formula, since the changes of that sum total of conditions on which these laws depend are due almost entirely to the effects of those states of human society which themselves come and go according to law. If by the method of taking large numbers it has been made out at what age, on an average, great poets produce their greatest work, what is to hinder us from seeking to discover, not only how many remarkable men of every kind (expressed either in whole numbers or in decimals) appear in every century, but also how in the course of thousands of years this proportion alters according to some law? We may easily imagine how in this way all kinds of formulæ may be arrived at, expressive of the acceleration and breadth and depth and colouring of the current of historical progress—formulæ which if applied to particulars would be found to be utterly inexact, but which can yet claim to express the true law of history as freed from disturbing individual influences.

Very closely connected with this way of regarding the matter is one of the very worst of all the views which banish freedom from historical development. That veneration of forms instead of content—itself one of the most dangerous errors to which our thought is liable—which is vindicated by the view alluded to, could not be exaggerated in any more senseless way than by the final acceptance of a mere realization of statistic relations as the aim and the informing Idea of history. He who, following oriental Pantheism, believes not only that he encounters, as a matter of fact, in the order of the world, an eternal alternation of genesis and dissolution, but thinks that he may also regard this form of occurrence as being itself the most profound meaning and the true secret of reality—he can at least give himself up with misty feelings of enthusiasm to the awful and exalted pleasure which the

thought of such a course of events produces in us. He who after any other fashion believes that he finds in history nothing but the rule of an iron necessity, must hold that this is in itself full of meaning; he seeks to find this meaning in some kind or other of justice, according to which the content and nature of any condition of things being what they are, allow and demand the effect which takes place. To such a concatenation in thought, the motives of which at least are reasonable, the mind may conceivably sacrifice the idea of its own freedom if it finds in this scheme no place for it. But on the other hand, it would be an instance of unparalleled perversity to see the guiding ideals of the order of the world in the establishment of regular numerical relations, or in the fact that events happen in accordance with such relations. And yet here I am not altogether beating the air, and my fear that even this attempt—the attempt to make us thus believe in such "shadows in the cloud" and nothing else—will be essayed, is not quite without foundation. For we do actually meet, not infrequently, with what is the beginning of this very error. It is with some pride, and not without something of the thrill of awe which may accompany the discovery of an ultimate mystery, that people caricature careful investigations (the value of which we do not depreciate), declaring that the tale of yearly crime is paid by mankind with greater regularity than that of governmental imposts. It is plain that in saying this they think they have affirmed not a mere fact resulting from unknown conditions and changing as these change, but a fundamental law which with mysterious power can always find the means of its realization, and work itself out whatever may be the opposition of unfavourable circumstances.

This erroneous view will indeed hardly be put forth as a doctrinal assertion concerning the meaning of history; but it secretly disturbs just judgment in the matter by causing a confusion of thought, and this the more easily because it is not equally wrong with regard to all departments of events. For among those phænomena of human life which show such regularity in their recurrence, we may certainly regard some

as being subordinate ends of the cosmic order, or merely means to the realization of higher ends, and that will hold of them, to a certain extent, which we denied to be of universal validity. Most of such phænomena, however, may be compared to the impeding friction which, though it is no part of the designed performance of a machine, must yet always bear a certain determinate proportion to the size of the machine as long as the work of this can only be accomplished by mechanical means. But it is worth while to investigate a little further the insignificance of the extent to which this additional determination does away with existing difficulties.

The equality of numbers of the two sexes may certainly be reckoned among those arrangements of Nature in which we see means designed for the attainment of the higher ends of life. But as even the causes are unknown which in any particular case determine the sex of the child, so, much more, are those circumstances unknown which determine these causes (that lead to different effects in the different cases) in such a way as to obtain the unvarying gross result. The logical rule which directs us to anticipate that diverse possibilities, when there is no actual reason why one should occur more frequently than the others, will all be realized with equal frequency in the future, is no doubt for us a necessary subjective maxim—and we have to regulate our belief in the probable future occurrence of these cases by this maxim, for the sake of practical ends; but it contains no shadow of explanation concerning the mechanism of those conditions by which the equal frequency of two events is really brought about in the cases in which it happens. And we get no help from our general presupposition that the very possibility of all reaction is based upon an essential and inherent connection between all existing things. This presupposition does indeed provide us with a general formal reason for expecting that anything which happens in one part of the world will react in accordance with some law on every other part thereof; but—just because it seems so unquestionable that all things in the universe are connected with one another—we

only remain all the more at a loss to explain the particular and favoured connections which are closer and more effective between some portions of the world than between others, and upon the presence of which each individual determinate event must depend. It therefore continues quite obscure by what determinate arrangements mankind comes to form a complete whole of such a kind that a preponderance of one sex which has accidentally happened here, calls forth there, simultaneously or subsequently, a counterbalancing increase of the other sex, the external conditions of life being so very dissimilar, and we being entirely destitute of any idea of how the necessary action and reaction could take place. And yet not only does the fact exist, but we are doubtless justified in considering that in it (if in any case whatever) one of Nature's ends is attained—an end for the fulfilment of which pre-ordained means will not be wanting.

The course of the spiritual life of society is still more obscure. We believe that from the number of actions of a particular kind observed in a certain period which has just elapsed, we can conclude to a certain number of similar actions in an immediately succeeding period of equal length, only because the sum total of natural and social conditions, upon which they depended in the former case, alter but slowly, and in short periods imperceptibly. But where such change occurs spasmodically, we do not expect that a forecast made in reliance upon the past will be applicable. Still this caution does not remove all difficulty. Even the modified statement would be fully justified only if we could regard the sum of unknown conditions as a compelling force which would itself command a definite result in a definite time; which further, finding the total resistance opposed to it to hold always a similar relation to its own magnitude, would be capable of exercising in every unit of time one and the same fraction of its energy; which could then moreover always make actual use of this capacity by ever seeking and finding, like the pressure of a compressed fluid, the points of non-resistance, wherever those may be; and which finally, for every portion of the result

already produced would lose a corresponding portion of its potential energy. Now in the case before us, how many of these conditions are given ?

Let us take as an example offences against property. The evils of the existing distribution of goods in a society have active force only in as far as their pressure is felt. If then we make not poverty but the feeling of want our point of departure, can we say of this active force that there corresponds to it as its natural effect a certain number of thefts without any regard to the total amount of unlawful gain ? If it further happened that in a certain condition of civilisation, this power always encountered equal resistance, what would be the explanation of the fact that it always finds for its exercise the same number of favourable opportunities, and that these should always be presented to persons incapable of resisting them ? If, on the other hand, we suppose that there always occur a great many more opportunities than are taken advantage of, and that the numbers of those accessible to temptation are equally in excess of those who actually offend, it becomes only the more difficult to understand how the number of offences already committed can so restrict the number of those yet to come as to cause the attainment of a definite sum total. So the connection of events which produces uniformity in the numbers of such actions, is altogether unknown to us.

Just as little are we satisfied by the numerous attempts to make the validity of such laws harmonize with individual freedom of will. If (as has been done) we regard the commission of a certain number of offences as an inevitable necessity imposed upon society, it does not help us at all to add that this necessity only necessitates the actions but does not predetermine the agents. If human freedom cannot get rid of the sum total of offences, the fact that the particular agents are not predetermined does not leave individuals free—the only thing that still remains doubtful is, whose unfreedom will be taken advantage of next? It has been said that if an insect were to creep over any part of the circumference of a circle

drawn with chalk, it would see all round it nothing but irregularly distributed molecules of chalk, though for an eye that took these in all at once, from some distance, they would be arranged in the regular definite order of a circle. If these dots were beings endowed with souls, it might be imagined that taken separately they had scope for free choice of their position in the circle, while taken altogether they were bound to contribute to the formation of a predetermined outline. We reply that if an orderly arrangement of many elements actually exists (for the circle has been drawn), it is indeed easily intelligible that this arrangement can only be fully taken in from particular points of view. But the unorder of the elements when looked at from other points of view, is not by any means the same thing as the freedom of those elements. All those dots of chalk are perfectly fixed in such relations as are necessary for the structure of the whole; they all lie in a narrow ring-shaped zone confined both internally and externally by a bounding line that has no breadth. How they are grouped within this zone is, as regards the form of the whole, to a certain extent indifferent, and it is just to the extent of this indifference that they are indeterminate. Now if the dots were living beings, this comparison would only teach the simple truth that they had freedom of action in those directions in which nothing had been fixed by general laws; thus if it chanced that such a law required in any society a certain number of thefts, the agents would be free not with regard to their thievish resolutions, but with regard to whether for instance their thievish exploits should be accomplished on horseback or on foot.

The dislike with which we hear of laws of psychic life, whilst we do not hesitate to regard bodily life as subordinate to its own laws, arises partly because we require too much from our own freedom of will, partly because we let ourselves be too much imposed upon by those laws. If we do not find ourselves involved in the declared struggle between freedom and necessity, we are by no means averse to regarding the actions of men as determined by circumstances; in fact all

expectation of good from education and all the work of history are based upon the conviction that the will may be influenced by growth of insight, by ennoblement of feeling, and by improvement of the external conditions of life. On the other side, a consideration of freedom itself would teach us that the very notion is repugnant to common sense if it does not include susceptibility to the worth of motives, and that the freedom of willing can by no means signify absolute capacity of carrying out what is willed—either of the carrying it out in conflict with the obstructions of the external world, or of that other and internal carrying out by which the will suppresses the opposing movements of the passions. Therefore not only the possible objects of men's endeavours, not only an idea of the means to their attainment, are suggested to the mind by a number of stimuli involved in the culture of the individual and of society, but also that effective strength of the free will by which it withdraws itself from being determined by passionate impulses, is dependent upon the collective culture of society. Hence there would certainly be no irreconcilable contradiction between the assumption of freedom of will and the other assumption that the sum of active conditions which operate in any given state of society, hinder to a certain degree the effectiveness of all free action, and produce a pretty uniform amount of mere instinctive action.

It would notwithstanding still be wholly incredible that the struggle of will and moral consciousness against all these obstructive elements should be as exactly predetermined with regard to its result as those statistical laws indicate. For the fact is that these laws do not measure at all that which we should expect to be so predetermined. Such laws originating for example in a comparison of tried and sentenced offences presuppose that the number of crimes which become known bear an unvarying relation to the whole number of those committed, and of this primary assumption no proof that is by any means cogent is possible; indeed, if they are designed to prove anything with regard to human freedom, they must further show that also the number of crimes committed bears

just as constant a relation to the number of those which have been resolved upon or prevented, or have miscarried, and indeed to the whole multitude of more or less serious temptations that have arisen in the recesses of men's minds. Not only do they not do this, but deeds of murder and manslaughter being counted by the hundred, there are grouped together under those class-names cases of the most various degrees of moral turpitude, the mere number being no criterion of the sum of evil committed in a given time by a given society in any direction. Only that such evil being a kind of friction inseparable from the life and progress of society, we may assume this sum to be connected by some definite law with the amount of movement in any society; but this would by no means hold of the mere number of cases in which the incidental ill effect takes tangible form under definite heads of crime. Therefore even if the constancy of this number should be confirmed by a fresh appeal to experience, we should still have to regard it as a fact of which we do not comprehend either the mode of production or the significance; we should never think of regarding it as an historical law in the sense of a predetermination of that which is to be. However the fresh appeal itself (which has been quite recently made) convinces us of the extreme overhastiness with which the statistical myth has been built up from deductions which cannot be relied upon. We have yet to obtain from exacter investigations the true material for more trustworthy conclusions—material which should take the place of the statistical myth above referred to.

§ 6. The investigations of which we have been speaking referred only to limited periods of time. The succession of longer periods markedly different in historical features has seemed to reveal not less definite laws, which I may here pass over more briefly. They are of interest only in as far as they have reference to the individual tendencies of human life, which we shall have to consider later; the more widely they attempt to formulate the progress of humanity, the less real explanation do they generally contain. Thus one man talks

of a law of uniformity in development, another of its sharp contrasts; others prefer the trinity of thesis, antithesis, and synthesis. It seems clear that all these are not modes of occurrence to which events are bound to conform, as if there were in the mere forms themselves something which it were worth while to realize. Rather in as far as they have any real existence, they are ultimate forms which appear as social action and reaction progresses, from causes for which we have yet to seek. If we attempt this search we shall find that the significance of such laws is partly very unimportant and partly not of demonstrable universality. Thus it seems hardly worth while to decorate with the name of a law of uniformity the very simple observation that the culture of a later period is commonly a further development of the impulses received from preceding periods; at the most it is only useful as emphasizing briefly the limiting condition to be found in the fact that the actual transmission of what already exists must precede further development. For historical progress is not (as people sometimes fancy) to be compared to a miasma that hovers in the air and seizes humanity unawares, either all mankind simultaneously, or particular sections by turns; it has always taken place only within that narrow circle where favourable circumstances permit the regular transmission of attained civilisation, and of efforts directed to the relief of permanent wants; and it has only spread as far and wide as geographical conditions, accessibility of countries, facility of communication, density of population, and multifarious intercourse between men in war or peace have given occasion.

The law of contrast that people sometimes, without any difficulty, allow to have validity at the same time as the law of uniformity, without drawing any boundary line between the conflicting claims of both, is not less simple. Speaking broadly, it only applies where simple forms of life, which in themselves admit of unbroken uniformity of existence, are in any way disturbed, and men's minds have become agitated by the longing for new satisfactions. Then their inventive power produces peculiar forms of civilisation, corresponding to the

momentary wants of the people and the mental temper of the time, without satisfying in an equal degree all the wants of human nature. The longer and the more fully any such characteristic civilisation has stirred up, satisfied, and exhausted all the receptivity towards it of which men's minds were capable, and the more widely it has set its stamp upon all external social relations and customs of life, the more sensibly do men feel the pressure of its one-sidedness; and the more vigorously do there come into prominence those spiritual pretensions (still fresh and unsatisfied, and seeking to impose a different mode of life) which this one-sidedness had forced into the background. But the articulation of any civilisation of long standing forms a whole that is too far-spreading and too widely rooted for newly arisen tendencies to overcome it in all points, and to set up easily in opposition to it a new and different and consistent philosophy. Generally the influence of such new tendencies is disintegrating and destructive; it is only after a long interval that a new system is established—a system that is not now the opposite of that which preceded it, because the time that has elapsed between the two has smoothed down the more extreme contradictions. In reference to individual departments of life we see more clearly the need of change which impels the human mind not only to continual removal of narrow and one-sided arrangements, but also to an aversion for truths that have grown old. As one gets tired of a good garment that one has been wearing for a considerable time, and finds that another which has been long laid by seems to have a wonderful charm of restored novelty, so the satiation of one side of our spiritual nature produces a burning thirst for just as one-sided satisfaction in another direction; and not only so, but there comes in addition a general inclination for paradoxical return to long-forgotten standpoints, and thus moods and opinions are kept in a continual state of fluctuation. Steady development belongs almost exclusively to those sciences which are capable of practical application in

ministering to our wants, and in which unrestricted change of "modes of thought and points of view" would produce painful consequences. On the other hand, men's views of life, the tone of society, artistic ideals, opinions concerning what is supernatural, views of history, taste in the enjoyment of Nature, and forms of religious worship—all these are subject to the influence of constantly changing moods—sentimentality or noisy activity, prophetic enthusiasm or realistic moderation; and it often seems as though the most profound penetration were shown in seeking the truth just where no one suspects it, that is in errors which the previous generation had succeeded in refuting. Thus there arises the alternation of characteristic forms of civilisation in history, and thus we understand how it comes to pass that in the course of progress not all the several charms of life, on the exclusive development of which earlier times may have expended their whole strength, can be preserved and handed down in equal vigour; on the contrary, they often have to be sacrificed altogether to other requirements of human destiny, on which succeeding times rightly lay stress. This surrender of previous gains is explicable to us as a result of human weakness; that it is not merely a partial failure of historical progress, but also an essential feature in the course that this progress must take, according to its very meaning, is an assertion which we can only regard as resulting from that perversion of thought, which undertakes to justify everything that actually exists.

More strange is it that not only the forms of civilisation but also the torch-bearers of civilisation change as history goes on. Not only are mankind as a whole never found moving forward together at the same stage of progress, but also the nations—at least those of antiquity—which have blossomed into civilisation have without exception sunk back from the summit they had reached to varying depths of barbarism and commonplace. Men are certainly in too great haste if they found upon these facts the historical law that each nation, like each individual, has its life, in which strength first increases and then decreases;

and it is still worse if, supported by this comparison, they venture to pronounce sentence on the future of nations which, having passed through some phase of their culture, are seen to be making new and tentative efforts. It is not clear either what reasonable signification this growing old of nations can have for the plan of history, nor what is the inner connection by which, as a mere matter of fact, it is universally brought about. Since in an individual man it is one and the same organism to which must be referred all impressions from without, and all reactions of its own activity, we can understand how in such a case there may be certain relations between the acting and reacting parts which would necessarily make that summation of experienced states result in the gradual alteration and disintegration of him who is the subject of them. But why the vital strength of a nation cannot always remain vigorous seems from this consideration only the more obscure; and certainly it does remain vigorous in those who for centuries have gone on in the monotony of some simple civilisation. The growing old of nations is plainly not included in the idea of a people as a predetermined necessity of development; and where it takes place it is the result of particular conditions of life, due not only to the peculiarity of the stage of civilisation which has been arrived at, but also in part to external circumstances. Nature strives to furnish afresh each new generation with the old capacities of the race, and ever to present anew vigorous and unspoiled subjects for further development. She does not altogether succeed; bodily vigour and mental power may diminish through the fault of a dissolute past; even without such fault, long habituation to some definite form of national culture may gradually transform the mental dispositions of a people in ways which we are unable to trace, and make it difficult to find a new equilibrium of healthier conditions of life when the internal corruption of that culture works out, and causes its disintegration. But nowhere do we find justification for assuming that these national diseases are incurable, and that when one flower has faded a second cannot follow. If the

nations of antiquity have not fulfilled such a hope, the reason was that not only did their culture become disintegrated through its own inner deficiencies, but also their national integrity was broken up by the destructive conquests of enemies more robust than themselves. That any national civilisation may flourish, it requires both political power and material wealth; but when the general condition of the world does not allow of the reinvigoration of its power, or when the opening of new roads of commerce and the abandonment of the old ones dries up the previous sources of wealth, and innumerable incitements to industry fall away, then the nation which any such fate befalls will seem to pine and dwindle incurably. Yet it will be capable of reviving to fresh life if the wheel of fortune makes a new turn favourable to it.

We must add to these considerations yet another question concerning the forces operative in history. Shall we attribute the similar elements which are found in the customs and legends of different nations, to transmission from one to the other; or shall we regard them all as indigenous productions which having sprung up anew, again and again, have everywhere assumed similar forms on account of the essential sameness of human nature? No one will really doubt that, taken broadly, both views are to be accepted to some extent; the real difficulty is where to draw the line between the claims of the two. Both modes of thought have often tried their strength on one particular example, the legend of a flood, which is spread far and wide among peoples very remote from one another. Riverside valleys subject to frequent and considerable inundations have been the homes of all the earliest civilisations; nothing could seem more natural than that this supreme danger threatened by the elements should be everywhere recorded in national legends. It is not quite so easy to explain, without supposing transmission, the great, although not absolutely uniform, similarity of the particular details with which legend fills in the history of the occur-

rence; hence people have been inclined to believe in a common origin of the different Asiatic accounts, and to assume that these were subsequently varied. But the American Indians, too, relate the same story; it was surprising to find that in one of their legends, Tespi—the man who was saved from the flood like Noah—when the waters begin to abate, sends forth first a bird of prey; this bird does not return, because it is feasting on the dead bodies of the drowned; then Tespi sends out other birds which also do not return; it is only the humming-bird that comes back with a leafy branch. The correspondence is striking enough to make one suspect communication, perhaps at a very late date; but at the same time the whole character of the legend is so thoroughly Indian that its being of native growth is not in the least improbable, and if chronology would permit we should perhaps be more inclined to think of Indian traditions having influenced the Mosaic account than of the converse having happened. So it still does not seem improbable that even such striking coincidences may have arisen independently in many unconnected mythologies.

And yet I confess that I regard with mistrust the unrestricted generalization of this way of judging. It is true that the natural surroundings of all nations are pretty much the same; but it does not follow so clearly that the impressions produced by them must, on account of the sameness of men's mental nature, everywhere lead to the same estimation of events, to the same trains of thought, and, finally, to the employment of similar artistic and figurative expressions. The points of view from which men, notwithstanding their human likeness, may regard Nature are manifold enough; the possible impressions produced by the same event may vary infinitely with mood and circumstances; the direction which may be taken by the course of thought that they stir up is incalculable; every correspondence that goes beyond the most inevitable deductions from facts seems always to require an individual proof of having arisen without communication or transmission. Appeal has indeed been made to general

psychological laws in accordance with which the impression produced by facts, the reflection following the impression, and the final expression by figure and comparison, must be connected together; it has been attempted to interpret the course of all human fancy by a kind of general symbolism supposed to produce similar embodiments of similar thoughts in the most diverse mythologies; but here too the question recurs, Are we not, in the cases which this assumption seems to confirm, mistaking the effect of secret transmission for a proof of independent correspondence?

The general scope of tradition in history is difficult to estimate. The very existence of complete and flourishing civilisations is forgotten in lands which were their home, and only a fragmentary remembrance of them preserved in the records of neighbouring nations, and for us great spaces of past time are wholly blank. On the other hand, isolated features (neither the most important nor the most common) of earlier civilisations have been saved amid the general wreck, and reappear among the most different nations. Our nursery tales contain echoes from the very earliest antiquity; the same fables that exercise our own reflection in youth were once told in India and Persia and Greece; many popular superstitions of to-day have their root in heathendom. With regard to much of this we know how it has been preserved and communicated, with regard to much we do not; and hence we not only learn to appreciate the great amount of transmission which has gone on imperceptibly, but we also remark that (as in all ruins) it is not always that which is the most imposing and the strongest and the most coherent that has been preserved, but that very often individual fragments of what was once the common property of mankind—fragments which look strange in their isolation—may unquestionably be dispersed among the widely differing civilisations of later nations.

# CHAPTER IV.

## EXTERNAL CONDITIONS OF DEVELOPMENT.

Common Origin of Mankind—Assumption of Plurality of Origin—Variety of Mental Endowment—Guidance of Development by External Conditions—Geographical and Climatic Furtherances and Hindrances—Examples of Peoples in a State of Nature.

§ 1. HISTORY, in the sense of a coherent development, connects but few sections of mankind. The west of Asia and the seaboard of the Mediterranean were the only places in which during thousands of years varying forms of civilisation followed one another, each transmitting to its successor its own gains and impulses to fresh progress. Outside this focus of civilisation innumerable other nations have either gone on living again, century after century, the common life of their kind and nothing more, among favourable or unfavourable surroundings, or they have perhaps struck out particular forms of development, but without connection with the favoured nations, and without contributing in any essential way to the further progress of these when they came into contact. Hence if we take a survey of history, it is presented to us not under the image of a single stream embracing all mankind and carrying them forward with steady action and reaction, though with different velocities, in the same direction; it rather seems to us as though various currents flowed from various sources, remaining long without any reciprocal influence—until now in our own age all nations begin for the first time to be brought within view of one another, and the way begins to be prepared for a universal reciprocity of action between the different sections of mankind.

Even classic antiquity had this impression of the condition

and fate of the human race when political conflicts and the curiosity of travellers brought to light upon the narrow stage of the then known world many peoples differing widely in appearance, language, and customs. In this impression there was nothing that seemed strange to the mind of antiquity, to which human existence appeared to be merely a production of the great mother, Nature, coming forth from her infinity and returning to it again; in the view of antiquity the numerous races of men (destined merely for the passing joy of life, and not for the accomplishment of tasks of eternal significance) may have sprung each from the soil of its native place, without any original connection, and as manifold witnesses of the inexhaustible fertility which Nature displays in her productions. It is only where some individual race in the course of its social development has acquired a sense of the lasting connection of its members, that national tradition seeks to strengthen this feeling by the supposition of a common origin; but the thought of a comprehensive unity of mankind was so far from these times that if two nations were found to have a connected origin, it was thought to be quite a discovery, just because it could not be in the least presupposed. It was Christian civilisation that first developed with decisive clearness the thought that all nations made part of one whole, and that evolved from the concept of the human race the concept of *humanity*, with which we are not accustomed to contrast a corresponding concept of *animality*. For the name humanity expresses just this, that individual human creatures are not mere examples of a universal, but are preordained parts of a whole; that the changing events of history which men experience are not mere instances of the similarity or dissimilarity of results which spring from similar or dissimilar conditions according to the same universal laws of Nature and of life, but sections that have their place in a vast coherent providential governance of the universe, which between the extreme terms of creation and of judgment allows no part of what happens to escape the unity of its purpose. While Christianity developed this conviction, it at the same time connected it

with the Hebrew account of man's origin, in which early and cognate views (strange to classic antiquity and far above it) had prevailed, without, however, having got rid of all the narrowness of exclusively national conceptions. The wish to hold all the numerous races of men together by the bond of likeness in kind and species, became intensified to the desire to trace back their origin to a single ancestral pair. Even this duality seemed to the Mosaic record too wide a beginning; according to this record the mother of the human race came forth in a wondrous fashion from the one father of us all, who was himself made directly by the hand of God.

The beauty and religious depth of thought from which these representations sprang will never fail of their effect upon our mind; but if the necessary development of human imagination involved a representation of the beginning of our existence under such figures, then it may be doubtful whether the Mosaic picture reveals an historical reality, or whether it can only be justified as affording satisfaction to an inevitable craving. The doubts which have long assailed this interpretation of our primitive history justify the brief consideration which we now subjoin.

If the human race has really descended from one pair, what moral results would follow from the fact, and at the same time become impossible if it were denied? In the course of propagation the splitting up into plurality by which the unity is succeeded is as much a fact as the unity itself. Hence as long as we are in the habit of making historical facts the sources of moral commands, the second fact would bind us to division just as much as the first one does to unity, and indeed even more so, since the plurality increases as time goes on; and it is the future and not the past in which the theatre, or at any rate the objects of our action, are to be found. On the other hand, if mankind arose from many unconnected beginnings—being however, as it now is, such that the different races, endowed with capacities similar yet not altogether the same, can only find full development and perfect satisfaction through the reciprocal action and reaction of all upon all—even

if this were the case, should we not be equally justified in assuming that the moral destiny of men must be fulfilled by the union of all in one humanity? Undoubtedly we should. men would still be brothers in the same sense in which they would in the contrary case; for since they certainly are not brothers in a literal sense, the name signifies merely the recognition of that spiritual organization which is given to all of us alike, and of the worth of that personality which we have to reverence even in its most insignificant form. According to these facts, which are actual, and in as far as they are actual, we have to regulate our conduct; but we never have to regulate it according to uncertain historical circumstances which, perhaps *have been*—the reality of which would not in the least increase the imperativeness of our obligations, while a successful refutation would necessarily plunge into confusion the mind which had based its sense of obligation upon them.

But among the things that *have been* we deliberately reckon that singleness of origin, supposing it to have been a fact. The more earnestly we seek the unity of mankind, the more must we desire that that which we find should be real and living and eternally present; for him who only seeks it in the first pair, the unity must always be something that merely has been. For the influence of this unity has nowhere continued to operate in history. It has not held mankind together, and has neither insured to them as a whole a steady common development, nor to the different branches knowledge concerning each other; scattered abroad, in parts of the earth's surface most remote from one another, the different nations have passed their life, each unacquainted with the existence of the rest. But, in fact, wherever any of them have early come into contact, we find national hatred existing as the guardian of national peculiarities which no race is willing to sacrifice for the sake of another; the earliest times are filled with incessant conflicts of races, even of those whose actual relationship could be historically proved; as one wave of the sea makes way for the next, so in this wild tumult one nation

after another has been swept away. So little has that assumed community of origin worked in the outward destinies of the human race, and it has been just as little active in men's feelings. In the most ancient times a foreigner was regarded as altogether without rights; it is only very gradually, and in proportion as history gets further and further from the beginning, that there are developed ideas of humanity as a whole, and of the regard which we owe to its representatives.

A glance at these facts leads very naturally to the question, Should we not place the unity of mankind in the future as an end of action to be sought after, rather than seek it in the past, where it can never be more than an ineffective and ornamental beginning of our existence? What is it that we should lose if we had to sacrifice a unity of beginning which subsequent progress has everywhere contradicted? It certainly would not be difficult for poetic fancy to imagine a chain of events which would exhibit man's original lapse from unity as a significant part of some secret purpose in the divine governance. But while we fully admit the worth of the religious thoughts that can be embodied in such representation, we should yet, when they are put forward as history, require proof of their truth independent of the proof of their significance.

The assumption of originally distinct races of men, differing mentally as well as in bodily formation, each arising in a region suited to it and attaining the kind and degree of civilisation which its capacities made possible, has not unfrequently been opposed to the theory of mankind's original unity as corresponding more naturally with the view which history presents to us. This assumption has been set forth in various forms, of which each has its special interest.

It has been found necessary, in the first place, to distinguish two great families of mankind, the active family of white men and the passive family of coloured men. It is supposed that the latter, dreamily patient and inert, loving home and inaction, possess nothing of the ever active

inventive restlessness which is the heritage of the white race; that it is this latter race alone which, impelled by the spirit of progress, has spread over the world in all directions, stirring up, educating, subduing, and supplying the sluggishness of the coloured nations with germs of civilisation which they would have been incapable of producing themselves. Indeed, the latter have been compared to the monocotyledons of the vegetable kingdom, those grasses and reeds which growing in countless multitudes give a green hue to uninteresting landscapes, with their monotonous luxuriance; the white races, on the other hand, which alone produce individuals of historic importance, who are of account taken separately, are compared to the class of dicotyledons which, and which only, produces trees with their picturesque individual forms. How easily this comparison — by reference to the vast pine forests of the North and the isolated palms of the South—might be so elaborated as to give it quite another meaning! We should learn that the external conditions of habitat and climate may degrade even dicotyledons to a homogeneous crowd that is counted only by thousands, and that even monocotyledons may under a favouring sky develop to forms which excite our admiration. Though we may, however, admit provisionally that this bifurcate view, without being applicable in detail, yet expresses on the whole a real historical fact, still we consider that it is illogical if it thinks that it can hold fast the unity of the human race, while it separates a branch *ab initio* useless from the only fertile one, by a chasm greater than that which generally exists in Nature between two species of the same genus, supposing neither of these species to have been influenced by culture and discipline.

According to another and more self-consistent theory which gives up the bond of a common origin, the different families of men sprang up independently of one another at different spots on the earth's surface; besides the Caucasians perhaps only the Mongolian race being indigenous to Central Asia, whilst burning Africa produced the Black man, and America

fostered the Red man from the first, the islands and coast lands of the South Sea and the Pacific Ocean having been gradually peopled from some unknown centre in the neighbourhood of the Sunda Islands. This view again has, so far, neither been able to prevail, nor have others prevailed over it, it has not even succeeded in defining exactly the content of its own doctrine. For neither has it been conclusively shown that the different races could not have sprung from one root, nor are the difficulties which stand in the way of a wide diffusion of mankind while yet in a helpless condition, so great as to prove the necessity of the isolated origin of each nation in its own native place. On the contrary, there still come within our experience many facts which establish the possibility of migrations to great distances by land and sea, even under the most unfavourable circumstances. But on the other hand, there are wanting a sufficient number of clear indications concerning the actual process by which mankind was divided into unlike sections, and concerning the paths by which they were actually dispersed over the earth. There seems so far no prospect of the discovery of one single primal language; the similar elements of civilisation which are found among nations separated by great distances from one another may indeed to some extent point to early intercourse and communication of thought, but cannot prove the common origin of those between whom the intercourse took place. Reasons and counter-reasons being so evenly balanced, it must be left for the future to decide whether the assertion of an independent origin of different races deserves to be accepted; on the other hand, however, the content of the assertion itself has remained hitherto somewhat indefinite, on account of the uncertainty which exists as to the number of primitive races which should be assumed, as to the way in which these became mixed, and as to the degeneration which occurs to a limited extent. The choice of the five races above referred to, was perhaps arbitrary; it is possible that others may have just as much right to be brought forward;

and it is just as arbitrary to consider, as this view generally does, that the appearance of the different races should be conceived of as an almost simultaneous creation of all mankind; it may be rather the case that each race belongs to a particular geological period. If this were so, those which we know may have been preceded in the very earliest ages by many others of which we know nothing, either because they have left no traces behind them, or because the monuments which testify to their existence are buried in the soil of the great continents of Asia and Africa, the palæontological investigation of which has hardly yet begun. The present state of science does not allow of any decisive judgment on these matters; our views are kept in a state of continual fluctuation by unexpected discoveries which throng one upon the other, and which we shall not be able to interpret with certainty until their increased number has made their connection clearer. Sometimes we seem to get glimpses of an immense vista rousing vague anticipations, extending to prehistoric times of our species of which we have at present no knowledge; sometimes these avenues through which we had had a glimpse seem to shut again, and the far-reaching views which they opened before us, close in, leaving nothing but representations of trivial events that have taken place within the short historical period which we know. At such times it is useless to insist upon having, at any price, some decisive answer; the only thing that is of use is to look steadily at the various possibilities, and to forecast the consequences which a future confirmation of any one of them would have for our philosophy as a whole.

This we have attempted, and though we believe we have ascertained that the original unity of the human race is not one of those thoughts the truth of which is necessary for the satisfaction of our soul, on the other hand we by no means share the hostile feeling that we so often see displayed in disputing this unity, which after all may possibly be a fact. Mankind would really lose nothing whatever

by the establishment of the one-origin view, in which (though it is by no means indispensable) long ages have believed and rejoiced; and just as little would they gain anything if by proving their dispersed and plural origin their fate should be externally assimilated more closely to that of the grass of the field, the blades of which we cannot count so as to form a unity. We cannot share, we can only understand, that hostility; it will very naturally arise wherever a mistaken zeal for certain forms of conception (in which religious truth is supposed exclusively to reside) attempts to settle without reference to the verdict of science, certain questions which ought undoubtedly to be submitted to scientific judgment guided by observation. This zeal, while it injures science, gains no advantage for itself; for since it cannot avert the coming results of investigation, it will at last find itself in the disagreeable position of having to regulate its faith according to the discoveries of the hour. It would escape this fate if it were more clearly conscious at the outset that the real treasures of faith are independent of any special forms of the historical course of events, and above all cannot be exclusively attached to any one form in particular.

§ 2. With the assumption of a plural origin of mankind is commonly combined the other assumption of original differences of endowment of the different races. This combination finds special contradiction in a view which, without caring about the original unity of mankind historically considered, believes that it must hold fast the unity of kind and the original equality of all men's capacity for civilisation. According to this view, to trace back the varieties of development which individual nations have experienced to innate and permanent differences of their bodily and mental organization is, as it were, a shortening of the arm of science, the business of which rather is to explain the divergence of mankind from one another as regards their way of life, by pointing out all the natural and social influences which have worked upon the originally similar natures of men. It is

certainly not necessary to lay special stress upon the truth which is unquestionably involved in this demand upon science; it is perhaps more to the purpose to observe that even this correct principle of investigation may be carried too far.

The principle is fully justified in the investigation of all those phænomena which we may still observe recurring and reproducing one another, in connection with and conditioned by other phænomena, but cannot on the other hand impose on Nature itself any greater simplicity of origin than Nature really has. He who assumes a peculiar vital power for the phænomena of organic life may soon convince himself that the supposed activity of this power is determined on all sides by physical conditions, and here it is that it becomes necessary for him to explain the consequences of this power as results which spring from co-operating causes in accordance with the same universal laws to which those external influences are subject. But he who traces back all plants to one primal plant, and all animals to one primal animal, on the one hand diverges from experience which presents no facts that require such a supposition, and on the other hand affirms a process which, even independent of experience, is by no means necessary on general grounds. For that Nature itself, like human thought, should in working progress from the imperfect to the perfect, from the simple to the composite, from the homogeneity of the universal to the manifold variety of the particular, is only a probable conjecture, in as far as Nature requires to utilize the imperfect, simple, and homogeneous, in producing the more complex perfection of the individual. Where we cannot assume that this real and solid advantage accrues from Nature's following such a path, we have no reason to attribute to it as necessary the same course as is taken by our own thought in observing, comparing, and classifying the perfected reality upon which it comes to work. Nature does not make first things and then their attributes, first matter and then the forces inhering in it; just as little is it necessary and self-evident that it should, in

the first place, embody in some single primary form the universal generic concept under which our thought may subsequently group together a plurality of species, effecting later the historical development of the species from this primary form, by the supplementary influence of further conditions. Rather does Nature (not destitute of the necessary and essential means of direct production) undoubtedly begin with all the rich variety of creatures which are equally possible as embodiments of the universal.

Though, however, we vindicate the possibility of this assumption, yet we do not recommend that it should be thoughtlessly employed. The principles according to which we must estimate mental life in general would above all things never permit us to deny altogether to certain races certain mental capacities, attributing to others an exclusive possession of them. The most general laws, according to which the events of mental life happen, are valid alike for men and animals to such an extent, and the connection between the different forms of mental activity is so close and many-sided, that if we take two kinds of mind which, in relation to many departments of this activity, present such a perfect similarity as we find in the different races of men, we shall see that these two cannot well be separated (with regard to any other department of the same activity) by the existence or defect of some innate capability. If there is a difference of original endowment, it is without doubt to be found in that which most strikingly distinguishes from one another even individual members of the same race; that is, in disposition and not in the nature and mode of operation of the mental powers in general, which are common to all. By disposition we mean that particular combination of impulses by which the mental powers have the direction of their activity determined, as well as their ends, and the vigour, variety, and constancy of their exercise; and all this may be different in different races, partly on account of inherited peculiarities of organic formation, partly on account of original idiosyncrasies of mental nature. And it is this which also determines the amount

of attainable development, according to the direction in which it predominantly guides the interest of the whole mental life, and according as it makes the mind more receptive towards relations of things the observation and treatment of which must inevitably lead it further, or causes it to find satisfaction in occupations and forms of life which contain no living germ of progress. The attempt to extend higher civilisation to nations which have hitherto remained wholly strangers to it, has been frustrated much more by the difficulty of arousing lasting interest in the benefits of our own culture than by want of the insight necessary for understanding it.

Now whether in point of fact these varieties of disposition are irremovable differences of original endowment, or whether even they are but the accumulated effects of constant external conditions, is a question which historical experience so far can hardly decide. The nations which hitherto have had a long term of life constantly reveal to us, amid all the striking changes of civilisation which they undergo, a tenacious persistence of peculiar characteristics which often merely change the scene of their manifestation. However estimable may be the attempts made to explain the varieties of human development by reference merely to the effect of those circumstances by which life is conditioned, they have not hitherto enabled us to dispense with the assumption that there are special variations of generic human nature which were given as the material upon which those conditions had to operate in the various branches of mankind.

Our judgments, however, on all such questions are never based altogether upon scientific grounds, but depend also on unspoken moral needs and doubts. Even the aversion to allow, in the case of mankind, the possibility of original variety, depends on a reason of this kind. If different creatures differ from one another by an altogether distinct generic stamp, it is not thought surprising if some lack the advantages of others; it seems that each should be contented with that with which his nature has provided him. The different races of men, however, seem to be as near one

another as possible, on account of the predominant similarity of their most essential characteristics, and what is of still more importance, they are capable of a common life of reciprocity in work and enjoyment; here a difference of mental endowment, which would be not merely a difference, but also a gradation of more and less, would seem like an unjust abridgment, as regards the less gifted races, of the means necessary for the fulfilment of that business of human life which is common to all men—means upon which all therefore seem to have an equal claim. This consideration is not without weight; indeed, we willingly allow that the supposition is inexplicable that a race of men may be for ever hindered by some concealed defect of their organization from reaching a civilisation for the attainment of which they seem to possess all externally cognisable capacities; yet the enigma referred to is so often suggested to us by history, and in forms so obtrusive, that our failure to understand it must not lead us even in this case to deny its existence. For still more inexplicable than those inherent natural hindrances to progress are the numerous cases where, on the one hand, individuals of the most favoured races remain far below the general level of endowment of their race, and on the other hand, whole nations are for centuries hindered by external circumstances from attaining a degree of civilisation by no means beyond the reach of their actual mental capacity. If we can neither alter nor deny this fact of the tyranny of external conditions, we have just as little reason for regarding the limiting power of original natural endowment as inconceivable.

§ 3. The aversion to allow innate differences in the dispositions of nations is not obscurely connected with that increasingly popular mode of thought which would dispense with all predetermination of future development in the human mind, and would leave it, as selfless and plastic material, to be altogether formed by external conditions. As men's taste varies in art, so it does also in the way of looking at history; and although we may easily admit that each of the opposed

views may be justified within certain limits, yet in neither case are there wanting unjustifiable transgressions of the limits of validity. Early historical idealism often proceeded as if the spirit of man dwelt upon earth devoid of wants, and in an atmosphere of purest ether, and as if, following nothing but the impulses of its own nature, it produced the melodious succession of its own significant developments, unabridged by any opposition, and only incidentally condescended to the prose of mundane circumstances in order to transfigure them to a reflection of its own splendour. In opposition to this idealism, the realism of our own time asserts, and rightly, the stimulating, restricting, and guiding power which those same mundane circumstances exercise upon the uncertain and want-laden nature of frail humanity. But neither is it necessary that the idealistic view should be held in the exaggerated form which we have just noticed, nor has the opposed view either the duty or the privilege of carrying its necessary and well-founded warnings to the point of that mephistophelic scorn with which men sometimes dispute the efficacy of all nobler springs of development—of all except such as depend on imperative need.

Only plants are destined to live by the favour of external circumstances, without reactions that bear the stamp of living activity, and accommodating themselves to moderate change of such circumstances, but helplessly succumbing to the effects of greater change. Hardly anywhere in the animal world is the satisfaction of natural wants attained without some individual effort on the part of those satisfied, and in some kinds of animals this activity is so developed as to have become an instinct of co-operative labour. But in these very operations—to which, indeed, the animals are stimulated by outward impressions, but the mode of which is determined by themselves in accordance with an unalterable impulse of their nature — the agents seem to us less free and active than in those less striking performances by which they (within narrow limits) modify the operations referred to in accordance with changing circumstances. Mankind, not being directed

and restricted to one definite occupation by any similar prompting of Nature, see before them the whole earth as the sphere of their activity, and must find out by manifold experience that which Nature itself has imprinted on the souls of brutes; that is, necessary ends, efficient instruments, and the most useful division of labour. They do not come to this task unprovided, but they come without having received an impulse from Nature to use these means in some one direction only; with an unbiassed sensuous receptivity and a capacity of bringing received impressions into reciprocal relations of inner connection, they are forced by their wants to seek out unknown sources of satisfaction. It is certainly true that instinct leads more easily to the satisfaction of wants than the reflection following experience, which errs in a thousand ways; but every error that fails of the end at which it aimed, finds in its path truths which would have remained undiscovered if an infallible natural impulse had led the mind straight to its goal. Hence even the simplest occurrences of daily life develop in the most uncivilised nations at least much skill in using the properties of things according to general physical laws, even though these laws (as *e.g.* those of equilibrium or of the lever) may never become to them explicit objects of consciousness. And all knowledge thus gained, just because it did not exist as innate endowment of the mind, but came to be formed through contact with things, and thus was matter of living experience, is felt to be, as it were, the production of our own activity.

At first the individual may, by a kind of superficial and hasty construction, gain shelter and support from his immediate surroundings; but a growing society, with its ever-increasing multitude of wants and the fresh demands which it develops, finds itself obliged to appropriate also, by well-considered division and combination of its powers, the less obvious utilities of natural products. By bringing large extents of land under permanent cultivation—by connecting distant regions for exchange of commodities—by increasing the value and convenience of their immediate surroundings

through manifold elaboration of the material they have appropriated—the members of such a society are ever transforming larger and larger extents of the earth's surface, as it were to another and more home-like Nature, to the scene of a life of social order. In proportion as this happens, the dependence of man upon the elementary material world that surrounds him becomes lessened; he becomes accustomed to have most of his wants satisfied, not by direct application to this external world, but at third hand by the co-operation of social labour; he with his ideas, feelings, cares, and plans belongs far more to this new and secondary order of things, to the concatenated whole of human society, than to primitive Nature, which, while it is the basis of his existence, seems ever to withdraw further and further into the background.

It is, then, only when this early progress has transferred the centre of existence from the natural world to the artificial world of society that distinctively human life begins, and the possibility of its further development. For the inferior animals are as capable as ourselves of enjoying without preparation that which created Nature freely offers; it is the distinctive task of humanity to create for itself the world in which it is to find its highest enjoyments. In order to do this, mankind had to restrict the manifold possibilities of existence and action contained in the course of events and of our own impulses by thoughts of what is right and fair; they had by multiform elaboration to transform the productions of Nature, together with the soil which brought them forth, into a world of commodities, the attainment, preservation, and use of which combined the dispersed powers of individuals to a connected whole of occupations depending upon one another; out of the social contact which occurs in the course of Nature, and which is increased by the dawning community of labour, a community of life had to be developed that sacrificed many a liberty which Nature allows us, and imposed on itself many an obligation for which Nature gives no reason. So the human mind reared above the tangible sensible world of that which actually exists the not less complex ramifications of

a world of relations which ought to exist because their own eternal worth requires their realization. And this whole artificial order of life which man had to create in addition to created Nature has only in isolated moments of despair, due to conscious failure, seemed to the minds of men to be an arbitrary and revocable structure of their own invention; on the whole, social order has appeared to the human mind to be an altogether irrevocable natural necessity.

Now plainly we could not expect the construction of this spiritual cosmos to result from spontaneous evolution of the human mind without the stimulating and guiding influence of various external causes. It is not as though there were in us a natural impulse to progress which, like a pressed spring, strains to the rebound; but like bodies that cannot of themselves quit their state of rest, or that, when once set in motion, exert force upon the obstacles which they encounter, so the impulse to progress in the human mind, and the direction which it will take, are due to the velocity of the evolutionary movement in which the mind is already involved. It is certainly true that we may regard the ideals of the Beautiful, the True, the Good, and the Right as an innate possession of our soul, but only in the sense in which it is generally allowable to use this expression *innate*. They are not presented to our consciousness from the beginning as distinct representations, but only after our moral nature has been stirred on many occasions to approve or reject various modes of action do we think of them and recognise in them the principles according to which our judgment had previously proceeded. And if they had actually been innate in our consciousness as living representations that were in it from the beginning, of what value would they be for our development? The comparing activity of thought may, indeed, separate the feeling of reverence with which everything that is beautiful, right, or good inspires us from these particular occasions of its exercise, and attach it to the general notions of beauty, right, and goodness; but as none of these ideals has reality except when embodied in definite examples,

to which it gives significance, so neither would any of them have for us a definite content if we were not able to recollect individual instances of its realization. And if we think of the worth of all ideals as united in the unfathomable wealth of the divine nature to a blessedness which was before the world began, we are used to expect, even of this nature, that it should manifest itself in the creation of a world of varied forms; it is this which seems first, by means of perceptible relations between its different elements, to give to the hitherto formless universality of the ideal content an abundance of definite characteristic manifestations, and thereby a fulness of reality which it had seemed to lack while it remained self-contained. The human mind cannot accomplish such a mysterious creative act; it would have been vain to set it the task of excogitating with inventive fancy from the formless tendencies in which its innate ideals must have consisted, a multitude of cases of their possible realization. For in fact our whole existence, historical and unhistorical, is occupied in receiving the influences exercised upon us by the circumstances of the material world in which we are placed, these circumstances constituting the stimulations which first call forth our activity, the guiding conditions which fix the possible aims and content of our being, and finally the material on which we are continually impressing, in individual and limited forms, the image of the ideal. Much that is beautiful, much that is good, much that is just, admits of realization; but only such beauty, such good, and such justice as may be contained and comprehended in this world of sense and the relations subsisting between its perishing inhabitants. He who desires to see realized the beautiful in itself, or the good and the just as they would be in themselves without the realization being at the same time occasioned and restricted by some actual relation for which it is valid, desires something as contradictory as he who wishes that the speed of any movable object, the movement of which is only made possible by that contact with the ground which at the same time retards its motion, should be accelerated by the total removal of this resistance.

Human development, then, requires occasioning causes, and historical idealism is wrong if it takes offence at this dependence of the progress that has been made upon conditions which the human mind has not devised for itself, but has found upon its path. But the conditions of the beginning and of the progress of culture are not quite the same. When mankind have actually reached any stage of civilisation they are generally urged on by the impulsive force of this civilisation itself to a further stage, in which, with an already awakened consciousness of ends to be attained, they seek the satisfaction of yet unsatisfied wants; on the other hand, the first steps towards development can only be made possible by the favour of natural circumstances, by which also their direction is in the first instance determined. No rules of justice are conceivable at the beginning of civilisation without direct reference to objects of need or enjoyment, the use of which must be determined by a consideration of various claims; but it is Nature that by her niggardness or bounty must fix the worth of the productions which become the first objects of the dawning sense of justice with its regulative activity. There can be no individual development to a fixed order of life without connected labour; and it is external Nature which, by the special character of its products, and by the necessities which it imposes, determines how great a share of life is to be devoted to the task of mere self-preservation, and how much is to be left for enjoyment; determining also by the kind of work which it allows or requires, whether the human mind shall be pent up in a narrow circle of ideas and activities, or shall be spurred on to a life of many-sided and inventive action. The development of artistic and religious views depends only to a smaller extent, and not in its most essential features, upon the immediate impression which natural surroundings make upon human imagination; yet mediately the influence of these surroundings is great; for upon the geniality, ease, and elasticity of customary life, and the forms of intercourse which they allow of, depend the variety and vigour of that mental reciprocity within a society which is indispensable

for the formation of any coherent philosophical views. As, finally, the individual's sphere of thought becomes impoverished when it lacks the stimulating interruption of intercourse with others, so also for the progressive civilisation of nations, it is necessary that their different modes of philosophic thought should be brought into contact, and perhaps also, according to an oft-conjectured natural law, that there should be a physical blending of races not too alien from one another. Where the nature of the country affords means of communication that facilitate this reciprocal action between nations, we see the civilisation of mankind fall earliest into a course of coherent progress, on the contrary, it has remained for thousands of years in the same uniform condition in regions whose boundaries, inhospitable and difficult to pass, have restricted the inhabitants to a constant employment of the same means to their ends and the same conditions of life.

All these thoughts, even in that more detailed presentation of them which we must here renounce, have long lost the charm of novelty—they have lost it since the time when the modern realism of historical investigation began to make the dependence of progress upon the geographical conditions of the earth's surface a favourite subject of its inquiries. Meanwhile, however thankworthy these may be, they do not quite suffice to explain the capricious course that history has actually taken. Mankind cannot accomplish that which is impossible; hence we see how it is that a country of which the poverty and ruggedness make life difficult can produce no indigenous culture, but can only adopt one which has germinated and grown strong elsewhere. The presence of favourable conditions in other places, however, by no means explains how it is that they are made use of. The human mind is far from being so desirous of development from the very beginning as to be hurried away, by the favour of natural circumstances, to make all the progress which these render possible. Men may for long periods of time use with careless indifference natural products which seem directly to

suggest some definite application of their powers, without discovering this application; not even necessity is the mother of invention in the sense of leading men generally to seek satisfaction of their wants by reflection which may be the herald of subsequent progress; on the contrary, so great is men's natural sluggishness that, satisfied with warding off the most extreme misery, they will long endure the continual recurrence of sufferings which it would be by no means difficult to avoid by a moderately intelligent use of means which are actually at their command. We deceive ourselves therefore if we think we see in favourable geographical conditions — the advantageousness of which is immediately obvious to our practised observation—an impelling power which without reckoning upon happy receptivity of disposition in men could force them to develop, as if by natural necessity, in some definite direction and at some definite rate. And least of all can the special colouring which growing culture has taken among different nations be altogether deduced from a corresponding speciality of external conditions. We must admit that similar conditions have produced different results, the germ of which must be sought for first in the historical lot of nations, and last in the incalculable aggregate of those inner springs of action which stirred their spiritual life and in turn helped to determine national destiny.

§ 4. If, without any pretensions to completeness in the enumeration of infinitely varied facts, we now take a glance at those nations whose life—either unhistorical, or if historical interrupted—will afford us no opportunity of considering them more in detail at a later stage, we shall find that their fate is partly, but only partly, explicable by reference to the circumstances of their external condition. Without a certain density of population which brings men with their wants and claims, and their varieties of temperament and experience, not only into frequent contact but into lasting intercourse, both hostile and harmonious, the growth of higher civilisation among men is impossible. It was but few climates that afforded to infant societies the favouring conditions necessary

for this—making life easy by spontaneous fertility of soil, by a mixture of good and bad in the climate arousing wants without making the satisfaction of them very difficult, and finally (by the variety of the products and impressions which it afforded) establishing a sufficient variety of mutually complementary occupations and dispositions.

The frigid zone cannot be like a home to its inhabitants, in whom want does indeed rouse ingenuity in satisfying the most pressing needs, but at the same time frustrates every effort after beauty and fulness of life. Forced dependence upon those few productions of a niggard Nature which it is possible to reckon upon, makes the labour of preserving life difficult and too much alike for all. One can hardly imagine what a Greenlander's life would be without the seal. Shapelessly huddled up in furs of seal and reindeer, and tied into the skin covering of his kayak, a narrow pointed hunting boat capable of holding only one man, he navigates the Arctic Ocean in pursuit of the seal with inimitable skill; then he creeps back into his winter hut, constructed of stones, driftwood, turf, and skins, and feeds upon his greasy spoil, by the light of lamps that are always burning, the moss wicks of which are fed by seal fat; and the subject of conversation is a description of the hunt, graphically given and attentively listened to—"Thus he sat—thus he stretched himself out and threw the harpoon." And in the happier future world which he supposes will be in the depths of the sea, he expects a superabundance of birds, fishes, seals, and reindeer; and it is only in his hope that the short summer and sunshine of his present home will there be continuous, that he betrays his sense of the climatic burden under which he bends. This gloomy picture of a miserable existence is pretty much the same for all the northern coasts of the old world, amid local differences of position and instruments; these wildernesses have nowhere been able to produce a higher condition of human life, and to those races which by some unknown fate were driven into them they have only left the remnants of civilisation attained previously in more favoured abodes. The small amount of

subsistence furnished by a wide extent of country has everywhere prevented the density of population necessary for the beginning of political organization; all having to work at very similar occupations, and being separated from one another and from all foreign culture by the difficulty of intercourse, the scattered families have neither been able to advance to an educative division of labour, nor had they any motive for the development of social forms and ideas of right for the application of which no cases occurred. Natural goodness of disposition and various mental gifts have not been sufficient to prevent men in this existence of constant bodily hardship from coming to regard the coarsest enjoyments of the senses as the only really good things in life.

The people of the South Sea islands, though in a graceful instead of a repulsive fashion, are really quite as backward. When they were first seen, happily disporting themselves in the sea with easy agility—behaving with hospitable and gracious sociality on land—passing away the time in dancing, round games, songs, and cheerful talk—not given to assiduous labour indeed, yet managing their small plantations with skill—hardly needing clothing or shelter, but showing taste in what they had—healthy, strong, and active, even their most aged men contented and good-tempered—when they were seen thus, they seemed to have retained a paradisiac condition. A nearer acquaintance showed the dark side of this fair picture. The confined extent of the islands had indeed caused greater pressure of population and hence active commerce; but the fineness of climate had made work too little imperative, and the uniformity of weather and natural products had caused the lives of all to be too much alike. The islands were too small to be the scene of great enterprises, and there was no large continent accessible, capable, by the foreignness of its natural features and its inhabitants, of giving to the minds of the islanders a stimulating enlargement of their intellectual horizon; their isolation in the midst of the ocean could hardly develop anything beyond a peaceful and unprogressive existence. But such a simple idyllic life is a defensible mode

of existence only when considered as a temporary withdrawal from some familiar civilisation: where it is everything it is not an existence worthy of mankind. Where each individual brings into circulation as his contribution only the natural capacities of his kind, without having worked them out to an individuality which is all his own by some special labour of development, each will be esteemed as nothing more than a mere example of his kind, that may be used and worn out, and the life of the whole, like that of a herd of animals, only with the higher mental characteristics of the human race, will in the end have no higher sources of enjoyment than those with which it is furnished by Nature. Hence neither science nor art nor morality has been developed from the not inconsiderable mental capacities of these islanders, and it is but few who have lived through that idyllic life in innocence—with all the prevailing good nature and friendliness, it was possible for societies to exist, formed for the indulgence of immoderate sensuality and pledged to child-murder, and there was wide-spread cannibalism. So, like other fair products of animate Nature, they sported together with all the gracefulness of their kind, only to devour each other at last.

There was added another source of misery unknown to the polar nations. It was said that at an early period there had come from the north-west, from the mythical island of Bolotuh, where the gods feed upon ethereal swine, a light-complexioned race which spread over the islands and supplanted and enslaved its original inhabitants, who were of darker colour. By innumerable intermarriages, the external differences of the races were obliterated; but a strict system of caste was kept up, not founded upon differences of culture and hardly upon differences of occupation, but upon degrees of purity of descent. This system gave to the nobility, the Eries, rights without duties, and to those of lower rank duties without rights; to the former immortality and deification after death, while to the latter it did not even allow a human soul during life. Jealously guarding their rank among themselves, the nobles on the whole treated the people without

cruelty, although occasionally murdering these soulless beings without hesitation; and still more inexhaustible than the arrogance of the Eries was the patience of the subject caste, any of whose possessions a noble, by the *taboo* which contact with him could impart, might appropriate to himself and make it unlawful for the former owner to touch. Secular power was overridden to some extent by priestly influence, as is the case with all uncivilised nations among whom pretended mental pre-eminence is, on account of its greater rarity, more highly esteemed than bodily vigour, which is common enough; but here as in the north, this priestly influence represented not moral truth but that superstition which arises from a dread of the unknown powers of Nature, and which, driven by an ill-regulated imagination into erratic courses, has led nearly everywhere to a multiplication of horrors but nowhere to any wise regulation of life. So that here we find subtle complications of social order, attractive simplicity of life, and complete absence of all the higher aims of existence combined into a whole that abounds in contradictions.

The vivifying contact with foreign nations, customs and views, which the Polynesians lacked, was enjoyed in vain by the Negro races and the Indians of North America. The shores of the Mediterranean beheld one after another the brilliant civilisations of the Egyptians, Phœnicians, Greeks, Romans, and Saracens; they were certainly separated by a wide wilderness from the country inhabited by the Negroes, yet for thousands of years active intercourse was carried on notwithstanding this obstacle. All this influence of cultured nations, which certainly extended far into the interior of Negroland, produced no civilisation among the black tribes, neither the formation of great states, nor a dawn of native art and science—at the most nothing more than some scanty industries for the adornment of life. The same passions which move men everywhere, in Africa too caused wars and the successive predominance of the various tribes, from very early times; but whilst in the history of white men the dominion

of each great nation has been perpetuated in lasting and characteristic monuments, and has marked a memorable stage of social conditions, all these changes have been without result for the black races, and the tide of their national existence, after the waters had been disturbed for a moment by some unusual undertaking, went on rising and falling again just as they had done before.

In the explanation of this great historical fact, opinions are still found violently opposed to one another. The assumption that black men have less capacity of development is scarcely worthy of refutation, if it is understood in such an exaggerated sense as would justify the abomination of slavery. There has been sufficient experience, even under this unfavourable condition in America, to forbid us to regard a fixed limitation of intellectual endowment as a permanent hindrance to the development of the black races. It would be only in peculiarity of disposition which everywhere determines the force and direction of the application of mental capacity, that we could seek for conditions that have made an independent beginning of civilisation impossible for the Negro, and the appropriation of an alien civilisation difficult for him. To say the least, good nature, by which he is distinguished, is in the early stages of history never inventive; it is far more the evil desires of ambition and of unscrupulous egoism that nerve all the forces of the mind to attack, and induce men to search out every means of defence. White men have conquered the world, not by their superior morality, but by the obstinate perseverance with which they attacked all those who could only oppose passionate ebullitions and unconnected sacrifices to their merciless penetration and the consistency of their well-laid plans. The Negro's temperament gives no promise of any such results. Sanguine and changeable of mood, he is excited and diverted by every fresh impression, and is just as little disposed to steady labour as he is to pursuing chains of thought along those important intermediate links which do not charm by their own interest, and yet are indispensable for connecting that which is in itself more valuable. His warmth

of heart makes him accessible to religious awakening; but from the unruliness of his imagination, even these feelings are more likely to be the source of acts of isolated self-sacrifice than of a course of life ordered in detail. In a temperament of this description there are, without doubt, many features unfavourable to an independent commencement of higher civilisation, but also some which are sufficiently favourable to subordination under powerful and originative minds, to justify us in expecting either an imitation of foreign culture, or a gradual indigenous development under the consolidating pressure of an intelligent despotism. But hitherto neither of these events has taken place. The incapacity of the negro state of Hayti to attain a condition of permanent order has certainly too many obvious causes in its hasty formation amid a population vitiated by slavery, to prove conclusively that all similar attempts of coloured men must be equally resultless, supposing they were made under more favourable circumstances, such as have hitherto been lacking. On the contrary, in Africa itself the existence partly of despotic and partly of more democratic polities, shows that an external formal regulation of society is not wholly incompatible with the genius of the race, only there lacks that content of life which alone is worthy of man, and is capable of high development by means of these forms. That the Negro did not borrow this content from European civilisation is explicable partly by reference to the hostile fashion in which this came to him, and partly by the too great violence of the contrast subsisting between the complex variety of this civilisation and his own simple way of life. We see the hard-living masses of the white nations retreating with a similar lack of receptivity before the culture of the higher classes, as though it were a manner of life belonging to a different species of animals, and living on according to their own fashion, which they can understand. Finally, that in their native country Negroes have never by any progress of their own developed germs of higher civilisation, may be to an important extent, though hardly altogether, explained by the geographical

conditions of that country. We find these conditions partly in the enervating effect of the hot climate, which does not admit of the vigorous work either of body or mind that is possible in a more temperate region, partly in the natural fertility of the soil, which too easily affords satisfaction of the few wants which men feel in tropical countries, partly in the early age at which bodily maturity is attained, the period of education being thus abridged, and independent life allowed to begin too soon. Finally, we certainly find one of these conditions in the difficulty of carrying on communication over the unbroken stretches of the African continent, a difficulty to which it is due that the different tribes with their various fashions and customs (which, however, do not differ to any great extent) cannot come much into contact either with one another or with the views of men of different race. Whether that temperament which has made the Negro nations so little fitted to advance has resulted from these circumstances, so that under better climatic conditions generations which have had time to get rid of their inherited native temperament would be capable of much progress; or whether there is in their organization some impassable barrier to high development, which will compel them always to remain at a low level—these are questions which can only be decided by the future of the race itself. It would certainly be unfair to conclude from the past absence to the necessary future absence of historical development, and to seek the ground of this absence only in natural incapacity without having regard to obstructive influences; but when men (carried away by the certainly not inevitable assumption that all mankind are similarly organized, and by horror of the abominations of slavery) forthwith conclude that the Negro race will in the future reach that higher development which has not been attained all through the many centuries of past history—then, on the other hand, it seems to us that the conclusion reached is not convincing. With regard to morality, by which the laws of our future conduct are determined, this last assumption may be preferable, since it is one which cannot do

harm. As far as the consideration of past history is concerned, the point in dispute is not so interesting; for an originally existent capacity, which has for thousands of years been so obstructed by unfavourable conditions that it could never attain development, is in an historical point of view no less a puzzle than an originally poorer endowment of the race would be.

§ 5. For the most part the Red men of North America have resisted European civilisation even more expressly than the Negroes, and have not themselves developed any that is of much importance, although their condition may have been better before their social relations had been altogether disturbed by the ascendency of the whites and their perfidy. The superior appliances of European civilisation, matured under more favouring conditions, have made North America a rich country; the densely-wooded nature of those regions, with lack of water in the west and cold in the east, put difficulties in the way of an indigenous civilisation. Our cereals were not produced, and the scanty crops of maize in the north did not lead to permanent cultivation of the soil; potatoes and the domestic animals of the old world were unknown, and the allied native kinds of animals not very easy to tame. But there was a superabundance of game, and the hunter's life, everywhere for the sake of self-preservation the primitive form of existence, continued here to be the sole form. This was unfavourable to civilisation in every way. Without other sources of supply, even the best hunting grounds could support only a few persons to the square mile; populations never reached the degree of density necessary for the development of society, and were kept from the stationary form of life and its educative influences. The tortures of hunger, which are depicted terribly enough in their legends, made the care of a family a burden; the noble liberality which the less skilful hunter expected from the more fortunate, and which the latter cheerfully exercised, deprived the unskilful of motives to greater exertion, and the skilful of that useful egoism which attracts to further enter-

prise by the pleasure which increase of gain awakens. The necessity that the men should always be ready to fight caused all the ordinary work of life to fall upon the women, while the poorness and scantiness of the goods which they had to take care of, afforded them no opportunity of making their womanly guardianship of much account. The wide dispersion of the population and ignorance of the use of metals prevented any great development of manufacturing industry. Restricted to the most childish modes of sticking and joining things together, even fastening the laboriously cut stone heads of their axes into the cleft of the wooden handles with strips of leather or fibres of plants, they busied themselves only in the weaving and plaiting of ornamental stuffs, which was an affair of patience and of simple taste. The only things on which they expended labour were arms, ornaments, and the most indispensable implements, being generally more inclined to suffer than to take much trouble for their own relief. The custom of shedding blood in the chase, and the unavoidable disputes concerning the boundaries of hunting grounds—a serious matter for people to whom hunting was a bitter necessity of existence—gave them a fierceness of disposition which led to mutual destruction. Thus their life went on without historical progress, like the movement of a man who is swimming against the stream—movement which suffices indeed to keep him up but does not carry him forward.

They are not universally ignorant of the sources of their ill-fortune. "Do you not see," said one of their chiefs, "that the white men live upon corn, and we upon meat—that meat requires more than thirty moons to come to maturity, and often fails—that each of the wondrous grains which they plant in the earth gives them back more than a hundred-fold—that the animals upon whose flesh we live have four legs to escape with, while we have only two to follow them with—that wherever the grains of corn fall, there they remain and grow—that for us winter is a time of toilsome hunting, for the white men the time of rest? That is why they have so many children and live longer than we. Truly before the cedars of

our village die of old age, and before the maples of the valley have ceased to yield sugar, the race of the corn-sowers will have supplanted the race of the meat-eaters, unless the hunters make up their minds to sow too."

It was but few who did make up their minds. The free life of the wilderness has often had a permanent attraction even for Europeans; the real benefits of our mode of life pass away almost untasted even by many among ourselves, being buried under a multitude of small restraints; to the Indian especially the latter must have been more obvious than the former. And strange enough in other respects is the temper with which he meets foreign influence, whether this temper is an original endowment of the race or results from the long-continued action of the circumstances of his life. The silence, the reflective humour, the immovable pride of the red warrior may have been produced by the hunter's life, with its requirements of patience, attention, and foresight, of presence of mind under surprises, of fortitude under suffering; but both the customs and legends of the Indians show an inclination to fanaticism which does not seem to result altogether from these habits, nor to be due to the mere brooding of an unoccupied mind. "Ah, my brother," said a chieftain to his white guest, "thou wilt never know the happiness of both thinking of nothing and doing nothing; this, next to sleep, is the most enchanting of all things. Thus we were before our birth, and thus we shall be after death. Who gave to thy people the constant desire to be better clothed and better fed, and to leave behind them treasures for their children? Are they afraid that when they themselves have passed away sun and moon will shine no more, and that the rivers and the dews of heaven will be dried up? Like a fountain flowing from the rock, they never rest; when they have finished reaping one field, they begin to plough another, and as if the day were not enough, I have seen them working by moonlight. What is their life to ours—their life that is as nought to them? Blind that they are, they lose it all! But we live in the present. The past, we say, is nothing, like smoke which the

wind disperses; and the future—where is it? Let us then enjoy to-day; by to-morrow it will be far away."

This is not the language of stupidity. On the contrary, if it were presented to us in Greek verse, we should admire in Latin commentaries the fineness with which it derides the perversity of the white men of whom so many in their haste to get forward lose all remembrance of their goal. But it is certainly true that this mode of thought could not be favourable to the development of social life, as long as it held its ground and was supported by the combined influence of all surrounding circumstances. Meanwhile the attraction southwards which animated the migrations of the European nations, moved these tribes also in ancient times, and whilst North America saw no indigenous political development, we are dazzled by the splendid spectacle of the kingdom of Mexico in the central region of the great continent, and numerous ruins bear witness that there once flourished other centres of civilisation, of which the history is lost to us.

The mild climate of Mexico, where the land is narrowed between two great oceans, the four-hundredfold return which maize not unfrequently yields, and the banana, which in a given space of ground produces twenty times the nutritive matter of wheat, here admitted of a settled population increasing till it became very numerous. Life was divided between work and leisure, and division of labour became possible; wants grew with the production and offering for sale of goods; there came into existence nearly all the arrangements which conduce to social intercourse and luxurious enjoyment of life. A disposition to cultivate flowers began to appear in addition to careful husbandry and orcharding and culture of medicinal herbs; the weaver's art produced magnificent garments of gorgeous colouring composed of cotton interwoven with feather-down; gold ornaments and precious stones faultlessly cut might be put on before obsidian mirrors. At feasts the tables were decked with costly utensils, and these feasts were conducted according to a complicated ceremonial, and with all the adjuncts of

civilised entertainment; the general tone of society was courteous, and the morality of domestic life (which was held in great honour) was marked by propriety and moderation and was a subject of instruction. The exchange of products was accomplished by means of markets held at fixed times. At these times in the large and populous towns, of which more than one seemed to the Spaniards to emulate Granada in its palmy days, many thousands of persons moved about among the various stalls which belonged to different trades and were arranged in orderly fashion, and in this busy mart there was wanting neither police supervision, nor a special Court of Justice that sat continuously for the settlement of any disputes that might arise.

According to the Toltekian legend, the founder of this civilisation was the hero Quetzalkohuatl, with fair face and long beard, who came to the country from some unknown and distant region, accompanied by many followers clothed in long garments. Whatever may be the historic kernel of this tradition, the limitations of Mexican civilisation seem to bear witness to its native origin. Quetzalkohuatl was said to have come over the sea; but the Mexican merchants, in other respects so enterprising, did not navigate the ocean; there had not come into the country from over the water any of the domestic animals of the old world, nor even the thought of taming native species; the bales of goods were conveyed by human carriers along the broad highways; our cereals remained unknown, maize being the only grain until the Spanish conquest. The Mexicans did not know how to obtain iron, they worked the land with implements of copper and bronze without the help of draught animals, setting not sowing the seed, providing for irrigation by dikes and trenches; finally, they did not adopt any of the modes of writing employed by earlier civilised nations, but developed for themselves a system of written signs. Thus none of the elements which are generally most easily communicated by foreign civilisation came to them from without, and we may regard their civilisation as the native development reached by the

genius of the Indian race under favourable climatic conditions.

On the other side of the equator similarly favouring natural conditions enabled the seaboard country of Peru to attain a remarkably flourishing civilisation; but the pastoral nomads who in the old world seem to have been the first to undertake the task of bringing several centres of civilisation into communication with each other, did not exist in America, and no intercourse took place between Mexico and Peru. On the other hand, in the great eastern half of South America the spirit of man was cowed by the overpowering might of natural phænomena. Monstrous rivers with resistless inundations, vast and trackless forests, the irrepressible vegetative vitality which causes every cultivated piece of land to be quickly overgrown with a rank luxuriance of weeds, the number of large beasts of prey, and the countless multitude of insects, winged or creeping, which speedily devour a whole harvest—all these hindrances still stand in the way of development in Brazil, notwithstanding the European industry which has long flourished there, and much more must they have frustrated the early attempts of isolated tribes.

If it were necessary to make this hasty sketch complete, Europe and Asia might increase the aggregate of unhistoric life by the addition of many nations who still live on in their old abodes with the same manners and customs which they had at the beginning of history. They would thus confirm afresh the impossibility of speaking of a past History of Mankind, since it is only among a small fraction of the human race that that connected series of events has occurred, which with an unwarrantable generalization we sometimes call the History of Mankind, and sometimes under the name of Universal History regard as signifying the development of all reality and the unfolding of the World-spirit. From the future, however, we may expect, as the best which it can bring, the diffusion of European civilisation over the whole earth. For the only native dawn of development of the

coloured race in America was completely destroyed by the bloody hand of Europeans, before the time to come could decide what were its capabilities of further development; and no one will imagine that the Negro race, being everywhere exposed to the influences of European culture, is now likely to develop a special national civilisation. But the Negro has at least some reason to hope that his race will be perpetuated, while according to a very general opinion Indians and Polynesians are doomed by the very genius of history to die out before the higher race of the Caucasians. The truth is that those coloured races were reduced to such an extreme degree of weakness simply by the frightful cruelty of their white conquerors and the numerous diseases which they introduced, or which—from some unexplained causes—are usually developed when races of men that are widely different first come into contact. In the Middle Ages a similar fate befel European nations more than once; but they had time to recover, for there was not in their rear any race still more Caucasian than themselves, seeking with the same consistent cruelty—partly natural and partly doctrinaire—to execute upon them a supposed sentence of history. Where such a chance of recovery has been given to the coloured races, they also have begun to slowly increase again; where they are really melting away like snow, there are to be found, first and foremost, frightful secrets of European colonial government—but the fulfilment of an historic doom will be found only by him who counts every accomplished matter of fact among the necessary phases of development of an Idea that rules the world.

# CHAPTER V.

## THE DEVELOPMENT OF HISTORY.

Stationary Civilisation and Nomadic Life in the East—Semitic and Indo-Germanic Races—Ancient Greece and Rome—The Hebrews and Christianity—Character and Early History of the Germanic Nations—The Germanic Nations in the Middle Ages—The Characteristics, the Problems, and the Difficulties of Modern Times.

§ 1. IN the old world, too, we see how the beginnings of human civilisation depend upon the favour of natural circumstances. It is between the Yangtsekiang and the Hoangho, in the lowlands of the Indus and Ganges, in the plain that lies between the Euphrates and the Tigris, and in the valley of the Nile, that we find the nurseries of the earliest civilisations. Fertilized by regular inundations, in restraining and utilizing which men's powers were for the first time combined for the co-operative production of careful hydraulic constructions, these river-lands brought forth in luxuriant abundance the vegetable products that were sufficient for human support in those climates which by their mildness reduced all physical wants to a minimum of complexity. In China and India the yield of rice was far above a hundredfold; the quantity of fruit borne by the date-palms in Mesopotamia and Egypt was enormous; Herodotus extols the splendid crops of corn and barley in the Babylonian plains; he is silent, he says, regarding the wonderful growth of millet there, because he does not wish to be disbelieved. Such an abundance of edible natural products, besides which each country possessed also some special advantages, favourable to civilisation in other respects, allowed these countries to attain a density of stationary population which early led to a complex development of social relations.

The accounts given by ancient writers, and a consideration

of the monuments which have been discovered, equally convince us how early the civilisation which grew up in these countries attained that perfection in the adornment and regulation of the surroundings of man's life which we sometimes consider to be an exclusive privilege of the enlightened present. Of the dim shadow that in our thought is wont to lie upon the gray and distant past, not much could have been observable in that past itself; it was bright and noisy, and in many places the externals of civilisation were developed with a perfection which could only be attained in an age sensible of having awakened to full consciousness, in contrast to the unawakened life of the past. Partly collected in large and populous towns, clothed in garments of cotton, or silk, or linen—sometimes simple, sometimes a marvel of taste and splendour—these nations walked the earth with a most lively susceptibility to all the grace and beauty of existence; the habitations of the rich were devoid neither of the variety of household furniture, which self-indulgent ease requires, nor of the mere embellishments of luxury, and the thousand charming trifles which imagination asks for the beautifying of life; their social meetings lacked hardly any of those means of amusement with which modern times are familiar, nor was their intercourse devoid of that ceremony which distinguishes human converse from the gregariousness of beasts. But all this brightness was not without its shadows; on the contrary, even in those times, the splendid remains of which we admire, men suffered under the pressure of the same social evils from which in the later periods of history they have never been able wholly to get free.

The fewer the indispensable necessities of life are, the more easily they are satisfied by the spontaneous productiveness of the soil, the more mildness of climate tends to make these natural productions sufficient, and the less—in fine—general civilisation (as yet undeveloped) requires provident care for the future and for descendants: so much the more rapid will be the multiplication of an impoverished population, who will be forced by every temporary deficiency of their ordinary

sustenance, and by every unusual disaster, to offer their services to those who have property, each underbidding the other. Even if it had ever been the case that a society, of which all the members had perfectly equal rights and claims, had shared equally in the means of production in a new country, the natural course of things, by the different increase of different families and a thousand other accidents, would soon have introduced inequality of fortune. But it hardly seems that this ever has been the case, the first permanent settlements having apparently grown up under other conditions more adverse to equality.

Those favoured river-valleys of which the luxuriant fertility invited to steady cultivation, are in Asia separated from the inhospitable north by an extensive zone of steppes and pasture lands which, solely by their innumerable flocks of tameable and useful animals, afford support to a numerous population. Men have dwelt here from time immemorial; pastoral tribes who still in many particulars remind one of the customs with which their most remote ancestors first appear in history. Made hardy by the discomforts of their roving life, and brought up to warlike vigour, and many of them being tribes of horsemen, in ancient times, as now, they moved about as nomadic hordes among the settlements of fixed civilisation. The chief towns of the latter were secured by impassable mountain boundaries from the continued repetition of petty attacks, to which perhaps they would have succumbed: but any considerable natural calamity which lessened the number of the flocks upon which the nomads depended, or any increase of population making richer sources of supply necessary, induced large bodies of the warlike shepherd tribes to make incursions into the countries of developed civilisation.

The history of Asia is full of the conflict between these two forms of life. Often in ancient times have the rich lands of Western Asia been trodden under foot by hordes of mounted Scythians; the growing prosperity of China was threatened by Mongol attacks; the already highly developed

civilisation of Egypt was subject for centuries to the assaults of the Hyksos; it was with the warlike nomads of Central Asia that there began that migratory movement which, after the fall of the West Roman Empire, initiated a new period of European history; and not much more than five hundred years have passed since there broke upon the eastern confines of Germany the last billows of that tremendous storm which the mighty spirit of Genghis Khan, supported by the united strength of all his tribes of wild horsemen, had brought upon the world. Thus the impulse which the unceasing restlessness of these nomadic races has communicated to the external destinies of mankind seems to be extraordinarily great; but on the other hand, in the history of civilisation no reminiscence of progress is attached to their name. In this region they have only made destructive incursions, and then have either sunk back again into their unhistoric existence or have fallen in with the civilisation of the nations with whom they mixed, without giving it any new direction. It was only the Arab nomads, who were of another complexion—burning religious zeal transformed them with amazing rapidity into conquerors of a great part of the civilised world. Without possessing advanced native civilisation, they appropriated many elements of western culture with a receptivity due perhaps to their southern origin, and gave to that which they had appropriated the characteristic stamp of their own mind.

These occurrences of later times must have had their analogues also in the earliest historic ages. Most civilised nations, according to their traditions, consider themselves as settlers and not aborigines in the countries which they have made famous. In many cases they came with an already developed civilisation to these countries, and found them inhabited by aborigines who, notwithstanding favourable natural conditions, retained the savagery of their primitive condition. So the Aryan Indians, when they spread south of the Himalayas, drove out a native race of blacks, who retreated to the most inaccessible mountains of the Deccan; and so in Egypt some Negro race may have

enjoyed the first-fruits of the rich soil, though the development of its historical life may have begun with the immigration into the country of men of Caucasian race who later regarded themselves as autochthonous; and traditions concerning the settlement of the Mediterranean coasts are full of the struggle between alien civilisation and aboriginal barbarism. But the converse process has also occurred; it has repeatedly happened that tribes from pastoral districts or mountain regions, men of natural vigour and capable of development though as yet undeveloped, have fallen upon the more enervated inhabitants of the plains, and have carried on in their own name the civilisation which the latter had first established. It is not the more frequent but the rarer case when those nations which have first expended their labour on the soil of any country, have subsequently maintained themselves in possession of it, and kept in the van of the civilisation which its gradually unfolded resources have made possible. These circumstances have been influential in the formation of social order.

Tribes of hunters and of nomads are apt to develop at a somewhat early stage of civilisation an aristocracy of rich and leading families; and just as naturally are they inclined to regard mental endowment which boasts connection with an unseen power, with greater awe than bodily strength and warlike courage, which for them are quite in the ordinary course. Nomad life offers but few inducements for developing these differences of social consideration into really valuable privileges; but in the transition to stationary life, the heads of tribes and the priests have always drawn tighter the loose reins which they held, and have succeeded by various means in bringing the fertile land entirely into their own power, and in compelling the great majority into their service as unpropertied labourers or dependent tenants. Among nomads the interests of all are too similar, and their simple way of life too readily scrutinized by all for it to be easy for budding despotism to make the individual members of the tribe permanently serviceable to its own ends; but a settled population involved

in a multiplicity of complicated relations, soon becomes unable to take a comprehensive view of its own capacities and wants, and the difficulty for each individual of reckoning with certainty upon the intentions of others causes them collectively to fall an easy prey to the narrow class-interest of the few who understand one another. So it came to pass that in the most fertile regions, stationary life fell under the power of the priesthood, and of an hereditary nobility belonging to the order of chieftains; where the nature of the country was favourable, the next step in advance concentrated the secular power, which is always jealous of partners, in one person, and produced the knitting-up of the spiritual power (which is everywhere conscious that it can only be effective as a combined unity) into an orderly system of strong corporations. The inequality of splendid and wretched lots, which thus arose in society, was finally only intensified when a conquering nation oppressed the conquered with the right of the stronger and the pride of nobler blood.

Hereditary callings are natural to dawning civilisation. Partly with the object operated upon, as in the case of tillers of the soil, partly with the instruction which coincides with family education, where the transmission of knowledge by schools separate from the home is as yet non-existent, the calling of the parents is transmitted to the children; free choice of some other employment is prevented both by the narrowness of men's intellectual horizon, which embraces only that which is familiar, and forces them to attach themselves thereto, and by the natural jealousy with which not only the different classes of society, but also the various trades, strive to keep themselves exclusive. These customs have, moreover, swayed in many ways the civilisation of later times. They occurred in the dawning culture of Egypt and India; but it was only in India that the contrast between the conquered race and the native population (which here was even greater than in the valley of the Nile), and, moreover, the influence of priestly views, developed such customs into those irremovable distinctions of caste, which, while they made certain calling

obligatory, oppressed all lower castes with the graduated contempt of those which were above them. China alone never laid these fetters of caste and status on its industrial population, knowing no hereditary differences of rank and calling, and all being under general state guardianship; this was perhaps a happy incidental effect of the absence of religious fanaticism and warlike thirst for glory. It was only here that access to learning (though to learning of not much value) was thrown open to all, and instruction early diffused and favoured. In India there stirred an infinitely deeper intellectual life, that with its strange mixture of extravagant imagination and penetrating subtlety, embracing the secrets of heaven and the vanity of earthly life, affected only the favoured upper classes of society; in Egypt and Babylon science and writing, the laboriously developed means of communication, were in the hands of the priests. Common life lacked the stimulus which might have been given to it by the wisdom which was kept secret, and this in its turn certainly lacked quite as much the impulse to progress which it might have received from intercourse with the thought of the people. Industry was not backed by any knowledge worth mentioning of the efficient powers of Nature; it was facilitated by but few technical artifices, and animated by no spontaneous artistic impulse. Astronomy alone became early a subject of instruction, but it teaches only what happens and cannot be altered; a knowledge of mechanical forces which man may use for his advantage was still wanting; lucky discoveries might be treasured and transmitted, but no knowledge of the principles of mechanical action invited men to progressive improvement in practice. The want of instruments similar to our machinery obliged actual manual labour to be employed everywhere, with a disproportionate expenditure of time and strength, and however great might be the luxury of the wealthy, the growing increase of remuneration could not repay the arduous labour expended on the productions required. Artistic activity was soon drawn into the service of religion; and hence, and from love of splendour

on the part of despots, it was stimulated to great works, though limited to certain established forms. Some few of these, as waterworks and roads, were of general utility; most, like the Pyramids of Egypt, and in the new world the Teocallis of Mexico, and enormous temples and palaces, only bear witness to the harsh oppression which, when there was no advanced knowledge of practical mechanics, extorted such prodigious results by lavish expenditure of human strength.

It is with varying feelings that we transport ourselves into these times. As long as it is only their productions that are before us, we admire; these seem to our imagination to bear witness to a mighty creative impulse in which all men with one accord must then have revelled. If we consider the means by which it was all produced, then it seems to us that any state of society must have been unspeakably miserable which allowed the sorely oppressed majority to be tyrannically used for the satisfaction of the aimless fantastic vanity of a few, which abolished the natural equality of men by cruel distinctions, and restricted their activity by innumerable checks and hindrances. But it may be doubted whether history would have made any progress if its beginning had been a quiet and peaceful sort of life in which every individual produced and consumed undisturbed whatever was necessary for the satisfaction of his frugal wants; mankind needed to be made aware that their vocation is not the mere supply of physical needs. The systematizing division into castes certainly restricted men, but then it also first brought into the world the idea of a vocation, and it taught men not to think that in merely being men they had attained the end of their existence. The iron oppression of despotism used men as mere instruments, but it also was first to combine them together as members of one whole; the extravagant pride of rulers dragged men away on expeditions that aimed at conquering the world, but this thought of the sovereignty of the world was perhaps the only way in which hostile tribes, still in conflict with one another, could be brought partly to the enjoyment of comparative prosperity by the

attainment of external order and security, and partly to a feeling of the connection of all mankind—a connection which, as with a binding law, overrides the caprice and hatred of individual races. And finally, the petty restrictions with which priestly ordinances beset life in all directions have in the East given rise to and maintained in the most effective manner the feeling of a constant connection between earthly existence and a universal history extending beyond mundane limits. The school of this first stage of education was hard and bloody; but on the one hand the progress of mankind for a long time dragged on the same social evils under other forms, and on the other hand without such a school the beginning of civilisation is even harder to conceive than its progress. It was through it that there arose for mankind the first really valuable content of life; extolled by one, cursed by another, having for the great majority the imposing aspect of natural necessities of inscrutable origin, established social organizations captivated the imagination by the splendour of their monumental constructions, and the will by the force of their attraction.

This it is that we are accustomed to point out as the characteristic feature of the East and of its philosophy. The ordering of life which men established seemed to them—that is, the thing created seemed to the creators—to be a self-evident and unconditional necessity, and the freedom of the individual seemed to be swallowed up by the superior power of that universal the outlines of which each individual must help to fill in. Social arrangements were regarded not as historical and alterable human constructions; all seemed to bear the stamp of supramundane sanctity; whether the whole order of existence appear as in China to be an impress of the being and rule of an impersonal Supreme, the copying of which restricts all caprice of personal activity to a faithful following of ancient customs and transmitted wisdom; or whether, as in India, acquiescence in the melancholy condition of oppression was due to the mystic tradition according to which different sorts of men proceed from more and less noble parts of the deity; or whether, as in the

pompous inscriptions with which the kings of Egypt and Persia used to cover the rocks, the ruler, as the direct representative of the Most High God, considered his commands to be binding on all the world. And as each private individual was reckoned as of little account in himself, so it was even with these rulers; it was not as persons but as office-bearers that they stood at the head of humanity. In the East, when the insignia of supreme power have passed from one person to another, obedience and submission have always been transferred along with them, apart from any fidelity to individuals. This sense of being embraced in a vast and predestined order was on the whole undisturbed by any spirit of disintegrating criticism; the vast extent of the countries, the difficulty of communication, and the want of means of intellectual intercourse prevented this feeling from being opposed by any flexible and progressive public opinion. Customs and systems of thought were maintained unaltered by tradition; morality and secular law were not separated from religion and worship. Great as was the division of industrial labour into distinct callings, in practical politics the most diverse governmental functions overlapped; general abstract points of view for the treatment of similar problems were not developed, and even in its most craftily contrived arrangements the oriental art of government (like the lives of individuals) shows a matter-of-fact simplicity which aims solely at its particular end, without any attempt at shortening the way by the help of general maxims.

Though this is the general character of the impression produced on us by a consideration of eastern nations, yet that impression must, of course, include many strong contrasts and counter-currents, since the men who lived there and then were in all respects the same manner of men as ourselves. The oriental character was not so wholly immovable and torpid as it seems to us at this distance of time. The ancient civilised states of Asia were not without mental revolutions, which for us, indeed, do not materially alter their general aspect, but for the men who experienced them were just as

much periods of active progress as European development is for us. Our attention is diverted from these circumstances by the consideration that but very few of them have been of service to the subsequent progress of mankind. Almost all those civilisations, shut up in themselves, passed through their various phases of development in isolation; China, on the eastern edge of the continent, was from the beginning out of communication with the rest of the world; India did indeed come in various ways into contact with other countries, but without any important effects; it was only Egypt and Asia Minor that gave to the West most of the elements of their civilisation.

§ 2. Only two great families of people—long in conflict with one another—the Semitic and the Indo-Germanic, have been instrumental in the further progress of history; and even of them many branches have diverged from the main line of development, some continuing the practice of old accustomed forms of life, some in course of time disappearing altogether. In ancient times the south of Western Asia, from the mountains of Armenia, belonged to Semitic races. And even if we leave undecided whether the primitive culture and the language of Egypt were attributable to them, yet the high development of Mesopotamia, the mighty Babylon, remains an early monument of their strength. From the narrow coast-land of Phœnicia Semitic merchants went forth on bold and adventurous voyages to all the islands and shores of the Mediterranean Sea, and beyond the Straits of Gibraltar, and the traces of industrial settlements which they left behind in then obscure Europe may have guided in many ways the later civilisation of the Grecian world. When the rich cities of the little Phœnician mother-country had fallen from the giddy height of luxury and self-indulgence which they had reached, and had succumbed to an invading and hardier race, the colony of Carthage, the mistress of the Western Mediterranean and its coasts, long withstood in tremendous conflicts the growing might of Rome; when this struggle, too, was decided, and the secular power of the Indo-Germanic races

was firmly established in Europe, the whole of the western world gradually submitted to the spiritual supremacy of Christianity, which took its rise and found its first advocates and ambassadors among a Semitic people. And even once again, in the Middle Ages it seemed doubtful whether the van of historical progress would henceforth be led by the still oriental genius of the Semitic race through the incursion of the Arabs, or by Indo-Germanic vigour, which had first attained full development in the West.

Whether the nations which now possess Europe were preceded by an aboriginal population of different race, we know not. Comparative philology teaches that the European nations are, with few exceptions, branches of one stock, which more than four thousand years ago fed their flocks in the favoured regions on the western slope of the Himalayas. One branch of this stock of Aryans, the "excellent," as they called themselves, gained possession of the land watered by the Indus fifteen hundred years before the commencement of our chronology, and about the same time another branch developed into a well-ordered and flourishing nation in the more westerly Iranian highland. India soon dropped out of the course of history in the isolation of its own fantastic development; on the other hand, the Iranian tribes succumbed to the attacks of their Semitic neighbours on the west, before the permanent supremacy of their race was established in the great Persian Empire. If we lack historical information concerning even this first division of the two tribes which were nearest to one another locally, and which likewise continued to be in language and thought most closely allied both to one another and to the parent stock, still more obscure are the times at which and the paths by which the migrations of others to the far west took place. The Celtic tribes which pushed on as far as the Atlantic Ocean, and hence were probably the earliest among those who immigrated westwards through the continent of Europe, have won no special place among the great civilised nations. Their development (in which at one time in their Gallic abiding-places they were certainly in advance of their

Germanic neighbours) was interrupted by the impulsive force of Roman civilisation; the remains of their dialects and customs are dying out. Later the Germanic immigration, and later still the Slavonic, reached Central Europe; earlier than this, the as yet combined Greek and Roman branches of the Aryan stock had spread over the Ægean Archipelago, the Hellespont, and the shores of the Black Sea, and split up into those two nations to which belongs the first brilliant instalment of European development.

§ 3. The great Asiatic civilisations have, it is true, developed many a treasure of knowledge, of order, and of beauty; but it was among the Greeks that mankind first opened their eyes full upon earth and heaven with that fresh, lucid, priceless awakedness of the whole living mind that we ourselves can feel and sympathize with. The various tribes of the Greek race lived through a long period of somewhat slow development, the beginnings of which are obscure, until the exertion of united strength, called forth by the pressure of foreign power, accelerated the onward impulse of that marvellous civilisation which, though its vital strength was soon exhausted, long continued to scatter its blossoms far and wide over the world.

As blazing suns may have been produced by the condensation of fiery vapour, so in Greece we see the immensity of oriental dimensions reduced to moderate and proportioned forms instinct with the most intense life. The theatre of development was a small district that could never boast anything like the number of inhabitants that an oriental monarch would have been content to rule over. Greece did not possess the fantastic wealth of alluring and terrifying wonders, which in the East had an enervating influence on organized energy, and amid which imagination ran riot; the nature of the soil—which yielded a good return to labour without being luxuriantly fertile—accustomed men to industry; a mild climate and bright atmosphere were favourable to fine physical development and to the training of the senses to accurate observation. The conformation of the country, which was

broken into deep valleys and numerous mountains, caused small communities to be shut up together in the closest proximity; the unequalled extent of coast-line and the rich profusion of islands were favourable to intercourse between the inhabitants, whilst here — as everywhere — nearness to the sea was decidedly inimical to lasting union under one government. Thus did this land, a rare jewel of terrestrial conformation, nourish many independent communities, within the narrow bounds of which the awakened nationality of the Greek-speaking race early developed extremely active public life — the Greek mind esteeming comprehension by means of language and knowledge of causes to be the crowning excellences of man, and social communion and intercourse with one's fellows to be the very flower of life's happiness. The age which regarded the heroic times as having immediately preceded it, and which celebrated in song the deeds of the heroes, was not without graceful forms of intercourse and demeanour; the continual friction and reciprocal action produced by interchange of opinions caused the nation to withdraw itself ever more and more from the yoke of transmitted custom as it gained new points of view, and it began to reconstruct with conscious art all its social and political relations; soon, having become accustomed to doubt and to critical analysis, it called in question all the foundations of ordered human existence, and was ruined by a sophistical excess of free thought, which here rose supreme over all constancy of existing relations and duties, just as in the East the traditional objective order of things had fettered all freedom of subjective conviction.

To indicate to some extent in a single phrase the historical position of a phænomenon so complex and full of life, is what we can hope to do only if we attempt not to exhaust its many-sided content, but merely to emphasize the difference between it and preceding times. Considered in this restricted sense, those no doubt are right who find in Greek life the first youthful self-comprehension of the human mind and the first dawning of that light of self-consciousness by which man

examines both his own destiny and the claim which existing natural relations have upon him. In the most various departments we see both this critical impulse and its youthful freshness.

However much of knowledge and of skill and of wise maxims earlier nations may have possessed and employed both in the regulation of social relations and in systematic art, the thought of seeking out the very grounds and bases of our judgment of things, and of combining them demonstratively and deductively in a system of truths—the foundation of science in fact—will for ever remain the glory of the Greeks. The immortal services which they rendered in this direction belonged certainly, then as now, to individuals, not to the crowd. However, to have produced the individuals—and of them not few—who aimed at and accomplished such great things, belongs, whether as good fortune or as merit, to the historic idea of the Greek nation. Among the special national characteristics of the Greeks were always that active insight and dispassionate spirit of investigation which examines every fact on all sides, tests every dictum, analyses every prepossession, and by an ineradicable inclination to try and understand every particular by reference to general causes and in its connection with the whole, led to the conscious formation of general notions, to proof, to classification, and, in short, to all those methodical forms of thought by which the theory and science of the West will be for ever distinguished from even the most imaginative sagacity and the most intellectual enthusiasm of the East.

They brought this spirit of investigation into all departments. Not only did they lay the foundations of logic and mathematics with remarkable exactness, but at the same time they interested themselves in the exhaustive treatment of domestic economy, the organization of the body politic, and the problems of moral education, as subjects of systematic science. A quick and unbiassed eye for matters of immediate experience helped them to free themselves from slothful acquiescence in inherited prejudices and the unreasoning

passion of superstition, which, mixing things human and divine with confused ardour, furnishes neither peaceful faith as regards the one, nor intelligent equanimity as regards the other. They shook off ever more and more the influence of oriental mysticism, which, with rank growth, everywhere sees and shuns incomprehensible and oppressive secrets in the smallest trifles, and created what was to this as prose is to dithyrambic verse. I do not mean prose composition, which also they did at last laboriously develop, but the judicious way of looking at the world which receives that which is inspiring with enthusiasm, that which is sober with sobriety, that which is earthly as earthly, that which is mechanical as mechanical—which does not treat everything with the same excitement and grandiloquence, but calmly estimates different things according to their degree of importance. Thus they early separated the secular life from the religious, as far as the two can be separated, and freed themselves from oriental theocracy; thus their impulse towards political freedom suppressed by degrees all those differences in the rights of individuals which they had received by tradition; thus in art much which was great and splendid, which the East cherished passionately but expressed chaotically, they preferred to leave altogether, in order to devote themselves to more manageable tasks in which they could make the special orderly rhythm of beauty as supreme as they tried to make the laws of truth over the facts of science.

But this spirit of investigation is in its very nature of double significance. It must assume an unconditioned and objective truth in things themselves, for without this its critical labour would be aimless; at the same time it must be the individual subject who by his recognition and confirmation first establishes this truth. The Greeks were not able to escape the influence of the double impulse here involved—the impulse on the one hand to reverence for that which is in itself true, and on the other hand to the ever-busy search for a truth that is yet more true; and herein, as in their bright artistic freshness of life, they exhibit the youthful age of the

human race. For youth in struggling upwards, often—when it has thrown aside the dreamy prejudices of childhood—becomes presumptuously doctrinaire, over-estimating, in the consciousness of growing insight, the instruments of knowledge, thinking little of the immediate and indemonstrable evidence of obvious truths and feelings; and while seeking ideals, unable to recognise as ideal anything that it cannot by proof and deduction transform into a product of its own reason. This over-estimation of pure thought and its instruments, logical forms, itself in many ways impoverished the science of the Greeks; they too often thought that they knew the thing itself when they had merely analysed the movement of thought by which we seek to approach the thing. In practice, however, reverence for individual dexterity of thought, and for dialectic skill in dealing with things, far exceeded respect for the nature of things themselves. The active Greek mind had discovered in rapid succession a multitude of standpoints from which to estimate all human affairs, and sometimes the establishment and development of art, sometimes any novel paradox was held to be of more consequence than the approval of an incorruptible conscience, the simple sense of duty, or immediate conviction. They thought that they could everywhere begin afresh from the very beginning, and that they both could prove everything and needed to do so; they connected moral teaching with theoretic speculation and its uncertainties; they had little feeling for historical relations which cannot be charmed away by the magic of a theoretic dictum; every fresh fancy to which any logical support whatever could be given, seemed to them entitled to be tested as a new principle. We often hear them enjoining upon one another respect and reverence towards ancestral traditions and the historical continuity of social conditions; but a glance at the multitudinous variety of political, social, and ethical experiments made by them as time went on shows how little these admonitions were attended to; and when by some chance they were attended to, this was due to their having the

attraction of presenting some other momentarily new point of view.

It had not always been so. Before the Persian wars the undeveloped state of society, and the prevalence of a busy, hard-working way of life had counterbalanced this excessive mental activity; but at that time the Greeks had not yet reached the turning-point of the historic race they had to run. The score or so of years that elapsed between their conflict for freedom and the Peloponnesian war comprise the time of short but brilliant bloom when the Greek spirit of liberty in its onward evolutionary struggle had not yet developed pernicious fruits. But lasting prosperity was impossible; the distinguishing excellences of the people were ruined by their unbridled sophistry. None of their virtues touches us more or was more of a novelty in history than their patriotism, and their readiness to sacrifice themselves for the good of a commonwealth that was founded on freedom of intercourse between the citizens and on comprehension of the benefit resulting from participation in common joy and labour and recreation and danger. But however highly they esteemed their fatherland and national freedom, yet each one understood national prosperity after his own fashion, and sought to realize this ideal after his own fashion; there were incessant revolutions, and these caused the rights of individuals to be in a state of constant fluctuation, and often produced such terrible crimes that the bloody history of real events forms a melancholy contrast to the splendid insight which we admire in the works left by Greek genius to posterity. Without the individualist spirit which impelled single towns to emulation for the palm in civilisation and artistic distinction, Greece would not have reached the eminence which she did; but when there came changed conditions, not admitting of such a dissipation of strength, the Greeks did not learn to suppress that selfish envy which had everywhere associated itself with the less ignoble form of the affection. Their imagination, indeed, continued susceptible to the great national thought of the freedom of all Greece; but they knew too many points of

view from which it was possible to justify anything and everything, and they had lost the simple sense of duty which robs all sophistry of its strength. They had early allowed to the Persian king an influence in their internal affairs which Rome never granted to the Punic enemy of her kingdom; and Greece—abounding in examples of treachery on the part of her distinguished men, depopulated by constant dissensions and by immorality that was sometimes sophistically justified and sometimes practised shamelessly, and lacking steady discipline—fell an inglorious prey to the attacks of Italy.

§ 4. We are accustomed to regard the Roman nation as the potent temporal power which, after it had destroyed the independence of the Greeks, afforded protection to Greek genius, enabling it, as it were, to concentrate itself, and laying at its feet a conquered world. And, in fact, what the Romans contributed from their own resources to the treasures of civilisation may soon be reckoned up; but the worth of what they did contribute is not lessened by its lack of variety. They accomplished a work which was impossible for the Greeks; they combined the nations of the earth in the community of a vast political life, and in the most diverse countries left seeds of civilisation which were not slightly sown, but took such deep root that their living branches have ramified through the whole history of later times. When Alexander of Macedon, leading the combined forces of Greece, and dreaming of a union between East and West, sought in his rapid triumphal progress through conquered Asia to spread Greek civilisation to the confines of India, the dazzling splendour of his individuality, so strange and full of genius, blinds us to the hopelessness of an undertaking of which very soon the only traces were to be found in legends in which the wondering nomads of Asia praised the hero who had come from afar. The Romans never indulged projects to be carried out at such a distance from their natural sources of supply; after they had, in hard-fought struggles for their own independence, subdued Italy and warded off Carthaginian supremacy in Europe, they progressed but slowly—impelled by circumstances

and lingering by the way—to that universal dominion which, when once established, was maintained for centuries. Such great historical results indicate the historical significance of the nation itself, and indeed, compared to Rome, Greece lived from hand to mouth, passionately pursuing immediate ends, while the political activity of the Romans was guided by a wider view, taking in the future, in which they were conscious that their destiny lay. The Greeks lived, as on some terrestrial Olympus, only for the sake of beauty and of working out their own development; to the Romans the known world, all the countries bordering the Mediterranean Sea, seemed to be an actual field of labour, setting before them definite tasks of acquisition, guardianship, and government. From ancient Italian civilisation they had received the idea of a mysterious lapse of time through ages marked by distinct characteristics; they felt themselves to be the bearers of this historical development and co-operators in its production, and their poets are hardly so loud in praising Rome's existing greatness as in emphasizing perpetually its undying future. And the result has proved that they were right. Greece, having perished as a terrestrial power, still lives on in the mind of the civilised world, though without any striking influence upon the conditions of our lives; but a countless number of our social and political arrangements, and a great part of our mental life, may be traced back along a line of unbroken tradition to Rome; and to places where there are no flourishing towns that owe their origin to her, modern civilised nations have carried with their language the lasting influence which they themselves received from her; Latin words and forms of speech are heard on the banks of the Ganges, and mingle on American plains with the labials of Indian dialects.

Human action is either guided directly by the idea of some desired result, and then easily comes to consider the means as sanctified by the end, or it follows general principles of universal validity, and will refrain from carrying out an intention as long as this can only be done by transgressing

them. The artistic bent of their minds inclined the Greeks to the first way; the Romans are distinguished by the conviction that a valid result can only be attained by respecting the fixed relations prescribed by the nature of those elements which co-operate in its production. We shall have occasion later to see how far this thought penetrated their whole life and action; in the present rapid survey we only wish to recall to mind the pearl of Roman civilisation—the development of law. For knowledge of the truth that is and operates in things and events, the Romans, as compared with the Greeks, did nothing; but the thought that the world of relations brought into existence by our actions, is just as much governed by a complex and inviolable order independent of our will as the forces of external Nature are in their general statical and dynamical relations—this thought owes its existence to the Romans. They did not, like the Orientals, regard existing relations as irrevocable decrees of fate; neither did they, after the fashion of the Greeks, consider actual rules, established institutions, and acquired rights as having the pliability of wax, and a capability of being moulded differently according to men's caprice, if they hindered the realization of an ideal; the Romans regarded both—both the variation which the needs of human nature demand, and the fixed condition which refuses change—as two valid forces between which men had to steer by means of law. They did not begin at the apex of the pyramid—at the ideal or desirable form of the state as a whole, logically deducing from this the just rights of the citizens, but they first of all established on general principles those relations between individuals which arise in the living intercourse of daily life. It was real needs, the requirements of circumstances, which subsequently impelled them to limitations of those private rights, in order to attain the prosperity of the whole which is itself the sum of all the individuals; and the final form of commonwealth aimed at was in every age that which combined in satisfactory practice respect for transmitted rights, provision for new wants, and the conditions required for the growth and continuance of the whole. Thus

there arose that unparalleled social struggle between the patricians and plebeians, in which violent passions—on the one hand a haughty insistence on privileges, and on the other a consciousness that participation in these privileges must be got by fighting for them—were held in check by regard to the necessary stability of political life, by recognition of the sacredness of law, though it were only formal law, by unswerving obedience towards governmental authority which had once been recognised, and finally, by a stern patriotism from which all thought of treachery was far removed.

The results of this evolutionary struggle were not as fortunate as the character which found expression in it was noble. The inadequacy of the republican political construction which had been suited to earlier and more limited relations was only compensated, as the state grew and enlarged, whilst the great men—of whom the patrician race produced many—used the space for independent action which was left to them to show brilliant examples of self-sacrifice and inherited political wisdom. This famous aristocracy fell into the background, as circumstances came to require rather the concentration of power in one hand than a general distribution of rights. In contrast to a new nobility of wealth without ennobling traditions that began to arise, the numbers of the unpropertied increased. The almost uninterrupted state of war which marked the early days of Rome had never favoured peaceful labour and industry; when at a later date Greek civilisation and acquaintance with the customs of so many different nations had undermined the old simplicity and strictness, when the treasures of the East and the products of the pre-eminently industrial countries poured in, and swarms of slaves in the palaces of the rich practised every kind of craft, a class of free labourers could find neither respect for their position nor a market for their products; even the ancient agriculture of Italy and the independence of the country population suffered from the accumulation of enormous wealth in the hands of individuals, and the expenditure of this wealth on useless luxury. Between the inordinate self-

indulgence and ambition of the aristocrats, and the beggarliness of a populace that could be won over to aid in any destructive project, the order of free citizens, which was the strength of the state, disappeared; and after long and bloody conflicts, the republic, shaken by the unprincipled struggles of individuals after power, fell under the dominion of the emperors, with undeveloped or impoverished forms of government.

For centuries as these rulers succeeded one another, madness alternated with discretion, cruelty with clemency, and Roman civilisation had an opportunity of showing what power of endurance and of resistance there was in it and in its creations, even after the animating impulse had died out. Whilst general enervation went on increasing, the discipline of the Roman armies still continued for a long time victorious over external foes; under the pressure of arbitrary political rule, the legal consciousness still went on developing to scientific clearness and completeness; amid the decay of morals there shine forth many examples of noble manliness that bear witness to the enduring power of a great past; and by similarity of regulations, by great roads of communication, by the general diffusion of one language and of one culture taught in numerous schools, all the countries bordering the Mediterranean Sea were connected together into one great whole of common life, which in the isolated happy intervals of peace and benignant government might with justice rejoice in the consciousness of such a degree of human happiness as had never before been attained. If, however, this state of society still contained the seeds of permanence, yet as far as human eyes can see, there were in it no elements of fresh progress; it was from outside the circle of nations which had thus far developed civilisation, that there came, through Christianity, the shock with which ancient history concludes and a new period begins.

§ 5. Among the theocratically governed nations of the East, the Hebrews seem to us as sober men among drunkards; but to antiquity they seemed like dreamers among waking folk.

With thoughtful imaginativeness these latter had considered the causes of the world and the sources of their own life and death; and feeling themselves to be parts of the great divine universal frame, they accompanied with wild rituals of sensuality or self-torture all the convulsions of its mysterious life—the yearly change of decay and revival in Nature, the struggle of the bright and beneficent with the dark and hostile powers; and over and above this wisdom which was current in daily life, the exclusive learning of the priests seemed to hide innumerable further secrets. All this was regarded by the Hebrews with the most extreme indifference; the mighty and jealous God who desires uprightness of heart, who pursues sin, and is avenged on iniquity—He indeed it is who has created the world and has caused all kinds of herbs and animals to spring up, and has formed the stars of heaven, because He willed that everything should be very good. But the imagination of the people was not absorbed in the contemplation of this creation, in which His glory was expressed only as it were by the way; to them God was a God of history, to whom Nature is as the mere footstool of His power, but the life of men, the life of His chosen people, the one object of His providential care. The whole superfluity of mystic natural philosophy, which so uselessly burdened the other religions of antiquity, was cast aside by the Hebrews, that they might devote themselves to the great problem of the spiritual world—the problem of sin and of righteousness before God; they felt themselves involved, not in the whirl of everlasting natural cycles, but in the advance of historical progress; they did not trouble themselves about secrets which concerned only past events, but all the more deeply were they interested in the problems of the future; and these problems were not to remain hidden, but the prophets were impelled by divine inspiration to announce to all, for their comfort the final attainment of a heavenly kingdom, for their repentance the commands of God. After the times of the first patriarchs with whom God had entered into covenant, the national mode of life had undergone many changes. The patriarchal

shepherds of the early times had, after the Egyptian oppression, become a warlike nomadic race; they had then formed permanent settlements and cultivated the land; finally, they were inspired with the commercial spirit of their Semitic neighbours, and, like the Phœnicians, became scattered over all parts of the then known world; the fundamental thought of their national life—their covenant with God, the consciousness of an historical destiny, and the hope that this would be realized—they had not forgotten, but on the contrary had become more and more confirmed in after many waverings at the outset. The civilised nations of antiquity, whose ingenious mythology and philosophical notions of divinity lacked nothing but simple faith in their reality, began to have their attention drawn to a nation that possessed in so high a degree the living conviction of which they themselves were destitute, and to which the ideas of God and His kingdom were not the mere ornamental poetical framework of a wholly secular view of life, but the most deep and serious reality. In the gradually sinking Roman Empire the Jewish faith gained consideration and adherents, although its national character was a drawback to it. But now the predictions of a Messiah had been suddenly fulfilled; the new covenant with God was proclaimed by enthusiastic disciples as an historical reality, and not merely a new doctrine added to the many other doctrines of the past; and the tenor of their announcement did not contradict the hope of finding the true satisfaction of longing desire in the final union—of which the secret had been long lost—of mundane and supramundane existence. The excellences and the weaknesses of existing Roman civilisation combined with some special historical circumstances to favour the spread of Christianity; but of more efficacy than all these was its own inherent power, due to its startling contrast with the hitherto received view of the world, and its consoling agreement with the secret thoughts that had been wont to rise in rebellion against that view.

Everything which a religion has to give it offers to the understanding in doctrines, to the heart in its characteristic

tone, its consolations, and its promises, and to the will in commands. The original doctrines of Christianity were not very multifarious. All those questions concerning the origin, coherence, and significance of Nature which Judaism had already passed over were also left undecided by the Gospels. Speaking only of the kingdom of heaven, it exalted the community of spiritual life as the true reality, in the glorious light of a history embracing all the world, and let Nature and its evolutions quietly glide back into the position of a place of preparation, the inner regulation of which will be revealed in due time. Neither did it speak of divine things as if it would measure out the Infinite demonstratively in concepts of human reason; all questions concerning the relation of God to mankind, which had already exercised in various ways the ingenuity of ancient culture, it passed lightly over with figurative phrases borrowed from human relations. Thus it seemed to reveal even less than that culture had already discovered. But in speaking of the sacred love which wills the existence of the world for the sake of that world's blessedness, and has its justice restrained by pardoning grace, it emphasized so much the more certainly that one thought the unconditioned and ever self-asserting worth of which can do without the confirmation of proof (which is very foreign to the nature of religion); and the content of that thought as the only thing that is really certain, at the same time guides the activity of sagacious investigation in a definite direction.

So Christianity offered infinite stimulus to the understanding without binding it down to a narrow circle of thought; and to the heart it offered full as much. For, according to Christianity, the sole truth and the source of reality with all its laws was something of which the eternal worth must be felt in order to be known; from the reality thus known through feeling, man's understanding can reach back to that which is divine, and can very often conclude from it to the divine, as from the ground of demonstration to that which is demonstrable. In this it met the eternal longing of the human heart, and satisfied it

in a fashion wholly new. The consciousness of finiteness has always oppressed mankind; but however much moral contrition we may find in the enthusiasm of the Indians, however much dread of self-exaltation in Greek circumspection, however much fidelity to duty in Roman manhood, yet everywhere this finiteness was felt to be merely a natural doom by which the less is given into the power of the greater, and its existence irrevocably confined within limits, whilst within these limits the finite is destined to attain by its own strength its highest possible ideal. The Indian sought to extort eternal life by frightful penances; the Greek was afraid of rousing the envy of the gods by pride, but he aimed at perfecting himself as man, and it seemed to him that virtue might be taught as any craft may be; the Roman, knowing nothing of a blissful life of the gods beyond his own, went self-renouncingly to death for duty's sake, an honest man whom yet no god had helped to be what he was. The characteristic of humility and submission, that is lacking even in the most mournful expressions of this sense of finiteness in antiquity, was brought for the first time by Christianity into the heart of men, and with it hope came too. It was a redemption for men to be able to tell themselves that human strength is not sufficient for the accomplishment of its own ideals; hence from this time mankind no longer seemed to be an isolated species of finite being, turned out complete by the hand of Nature, and destined to reach unaided, by innate powers, definite goals of evolution. Freed from this isolation, giving himself up to the current of grace, which as continuous history combines infinite and finite, man is enabled to feel himself in community with the eternal world, which he must stand outside of as long as he desired to be independent or believed that he must be so. And since the mere belonging to a particular race was now no longer a source of justification or condemnation—salvation needing to be taken hold of by the individual heart, which must be willing to lose its life in order that it might find it again—there now began to be developed for the first time

that personal consciousness which thenceforward with all its problems—freedom of the will and predestination, guilt and responsibility, resurrection and immortality — has given a totally different colouring to the whole background of man's mental life. This momentous content has indeed never reached the clearness of calm comprehension in the minds of all mankind to whom it was proclaimed; but even those who tried to resist it have never been able to get rid of its influence; it has remained the centre about which the civilisation of later times has always revolved, in hope or doubt, in assurance or fear, in zeal or scorn.

To him who so regarded the eternal connection between earth and the kingdom of heaven, all earthly history must seem but as a preparation for the true life, not valueless, since it aims at this goal, nor yet burdened by the tremendous seriousness of absolute irrevocability. Therefore Christianity proposed to the will only such commands as require permanent goodness of disposition; from the ordering of human affairs by ceremonies, law, and government, it stood indefinitely far. It could do without that which the heathen theocracies were compelled to demand; since what it asked for God was God's, it could give to Cæsar that which was Cæsar's. As for it God was not primarily revealed in Nature in the manifold forms of His creation from which the grounds of reverence might be deduced, so life was not primarily an established order of moral relations within which man might walk with a sense of security along paths definitely marked out; but to man's inner life was entrusted the work of gradually raising the forms of society to relations which were in harmony with his spirit. Therefore the attitude of Christianity towards the external conditions of mankind was not that of a disturbing and subversive force, but it deprived evil of all justification for its permanent continuance. It did not forthwith abolish the slavery which it found existing, but in summoning all men to partake in the kingdom of God, it condemned it nevertheless; at first it let polygamy continue where it existed; but this must necessarily disappear spontaneously

when the spirit of Christian faith made itself felt in all relations of life. And this conflict is still carried on in many directions, for the perversity of human nature, which is ever much the same, opposes to the better way all the resistance of which it is capable; but there is one permanent advantage by which the new age is distinguished from antiquity. That which is better and juster did indeed make a way for itself in ancient life, but almost exclusively in those cases in which the oppressed struggled manfully with the oppressor; the provident humanity which, without seeking its own happiness, takes the part of the suffering section of mankind, and requires and exercises deeds of justice and of mercy, was something very foreign to the ancient world, and in the new world it has no more powerful source than Christianity.

In conflict with mundane circumstances and human passions, and yet linked to both as the instruments of its realization, no ideal can, in the course of its historical development, remain faithful to its full perfection. Christianity, forced to justify itself to the civilisation of the ancient world, became entangled in the attempt to establish dogmatically the articles of its belief, in the hopeless effort to force upon its professors, instead of the inexhaustible fulness of living thoughts which the gospel can arouse in each, a complete system, many of the regulations of which were as barren in regard to practice as the productions of ancient sophistry. The simple division of labour which had arisen in the primitive Churches from the duties of the society in regard to worship of God and ordinary life, was transformed into a gradation of fixed offices as the diffusion of Christianity increased; in opposition to the universal human priesthood of the gospel, there was a fresh separation from the laity of an order of priests, and in the edifice of the hierarchical church the empire of the Holy Ghost stiffened into a slavish, earthly mechanism. But these deformities of Christian life, which a later age might undertake to rectify, were but as the tough rind which alone enabled that life, amid the ruins of the falling Roman empire, to save itself for its future.

§ 6. The Germanic nations — the often victorious, often conquered, but never subdued enemies of Rome — at last completed the work to which they seemed destined, by disintegrating that empire of ancient civilisation which had lasted for a thousand years. But they were not in a condition to substitute from their own resources a new civilisation for that which was passing away. The long death struggle of the Roman empire—which the Germans themselves, as the most valiant of the auxiliary troops, prolonged for a considerable time—had indeed brought them into many-sided contact with the elements of ancient civilisation and the teachings of Christianity, but the mass of that great people which spread victoriously over the Roman provinces had yet remained true to the simple life which they had lived on without historic record from time immemorial. No one knows what events filled up the long succession of centuries which lay between their first detachment from their original abode in Asia and their appearance in the history of European civilisation. It is probable that being long without a settled home, harassed by tribes who were pressing on them in their wake, they maintained their valour and warlike vigour in the struggle for existence; but that in the northern settlements, where they finally established themselves, they made little progress towards polite manners. At the time that the Roman empire began, and was revelling in all the treasures of the known world, the Germanic tribes still lived by the chase, by the produce of their herds of cattle, and by a somewhat rudimentary agriculture; they no longer roamed about homeless, but had fixed dwellings; as, however, their settlements were much dispersed, and they had no towns, they had none of that industry which is developed as a consequence of density of population and division of labour. Accustomed to hard simplicity in food and raiment—having even to economize the iron which they used in their weapons, since they did not know how to procure it for themselves—they braved the inclemencies of the weather in rude huts, being some-

times driven by hard winters into subterranean caves. Inclined to sociability, they yet found little to occupy them except fighting, games, carouses, and listening to heroic songs which repeated the great deeds of that same simple life. But with this meagre culture they yet combined qualities of character which were destined under more favourable future conditions to bring special benefits to mankind in the course of history. They possessed in high measure the love of freedom which contents itself with guarding from foreign influence its own liberty of choice in the conduct of life, but they had not the envious impulse towards equality which cannot endure that others should have the advantage in anything. It seems as though for the sake of that independence they had purposely refrained, in the simple arrangements of their society, from numerous steps in advance which, while bringing greater fulness and development of life, would have prejudiced the independence of many, but they submitted to the superior power of gifted leaders of their own free will, and with the most perfect fidelity; and, without recognising hereditary sovereignty or nobility, they yet had high respect for the heroic blood of famous families. This trait of willing service and absolute personal devotion is widely noticeable throughout their history, and as this is only possible in personal relations it has in later times always made the German nations more disposed to associate in somewhat small circles than to combine into one great whole. In the same way it always remained difficult for them to become enthusiastic about general principles which were not presented to them embodied in some personal form; but when such an enthusiasm did take possession of them, it was all the more lasting, for it was a long time before they came to know how to take up any cause half-heartedly. They were bound to give their whole soul to anything which they took in hand. It may be admitted that with such a disposition they were well prepared for the reception and inner elaboration of Christianity, without denying that in the early ages of the Church it

was the more southern nations of the Roman provinces that produced those men of lofty enthusiasm and deep earnestness who, as Fathers of the Church, were the forerunners of Christian life in the north.

The tremendous movement of national migration now caused the Germanic peoples to spread, in successive great waves, repeatedly breaking one upon another, over all the provinces of the Roman empire. They were not able to hold any of these southern conquests, being everywhere in a minority compared with the native population; but for a long time the union of the civilised world was broken by them, and over the rich countries bordering the Mediterranean Sea, which Rome had brought together in the noontide light of organized intercommunication, there fell a long twilight, in which some countries disappeared from the view of the others, and many elements of a previous common civilisation were lost.

The great and varied admixture of peoples and modes of life which the increase of the Roman empire and the growing development of intercourse had produced, had already in the closing period of ancient civilisation begun to disturb the simple, pliable, and self-confident spirit of antiquity, the one condition of which had been an isolated national development in accordance with a natural bent. Before the period of this disturbance a system of consistent philosophic views had been instrumental in causing the production of finished works of art exquisitely proportioned; clear and definitely determined tasks had given harmony and character to life itself; notwithstanding the inexhaustible variety of detail, reality as a whole—with its store of attainable good things and those desirable forms of human life to which it gave scope—was spread before men's eyes with the perfection and completeness of a well-arranged picture. Yet this whole mode of thought had certainly rather suppressed than satisfied the wants of the human heart. The self-distrust which had earlier overtaken Greek life found its way into the Roman world too in the time of the emperors. Unquestioning faith

in the supremacy of Rome gave way to cosmopolitan considerations; the narrow but robust system of thought which constituted national morality was invaded by philosophic reflection; artistic imagination, which suffers most of all from mental indecision, changed its calm mirroring of reality for dissatisfied and passionate flights beyond the world of fact, and commingled accepted forms of representation in attempts of a new kind. Religious belief had long since lost its certainty; with the most baseless superstition was combined a restless longing to win back from any known or unknown worship prevailing among men the certainty which had been lost. Then Christianity came, and the new spiritual growth had to force its way up through the rents of the ancient system of thought, the external integrity of which was finally destroyed by the invading torrent of the German barbarians. If this blending of all imaginable forms of life could not fail to change fundamentally the genius of what remained of the ancient nations, it could likewise not fail to be difficult for the conquerors to know what attitude to take towards such boundless variety. These conquerors came down upon the Roman empire without any definite aims, partly yielding to necessity, partly urged by the struggles towards expansion of a strong nature that sought to appease its impulse to action by violent and powerful but yet objectless exercise. Now there lay before them the down-trodden classic world, with all its rich treasures of Nature, of art, and of life, and with the countless elements of civilisation which it still contained; in exercising themselves upon this battle-field they for a long time gave to history that stamp of adventurous romance which—with its wealth of free and original powers, its inharmonious struggle after great and passionately pursued yet mutually inconsistent ends, its variety of strange forms of life, and its incoherence—distinguishes the Middle Ages from the period of ancient history.

§ 7. When after three centuries the stream of national migration had come to a stand, there had become united under Frankish rulers districts in which indeed Germanic blood pre-

ponderated, but the inhabitants of which could hardly feel themselves bound together by any common tie except when they were obliged to take the field together against an external foe. Especially in those German countries which had only come into contact on their confines with Roman dominion, the absence of towns caused the continuance of that old life of meagre social intercourse natural to a sparse and scattered population. The differences of disposition of different races, the lack of common administrative interests, and the difficulties in the way of exchange of thought, prevented the development of any active public spirit. Charlemagne was able by his individual power to hold all these provinces together by help of arms, and in peaceful activity to enrich them with the germs of a subsequent flourishing civilisation; but to breathe the vital strength of a self-maintaining political whole into a society of which the constituents had so little need of one another and so little dependence upon one another, was a task beyond his strength. Hence, when the re-establishment of the Roman imperial dignity in him once more gave a supreme ruler to the world, the new unity of the human race was just as much the imaginative ideal summit of a not yet existing society, as previously the first institution of the same dignity had been the natural conclusion of a long social history, from which it grew without any appearance of novelty. And this character the empire of the Middle Ages maintained throughout. It only temporarily possessed the power corresponding to its ideal position; but though this was a merely imaginary picture, it yet really lived in the imaginations of men; the thought of the majesty of a single temporal government was by no means an empty dream, even although it could not be carried into effect, but—like conscience, against which the passions are always in rebellion without being able quite to silence its enunciations—this ideal picture, while lacking actual power, hovered before men's minds in the Middle Ages, and reverence for it always kept much self-will within bounds and called forth many an act of self-sacrifice.

As a matter of fact, the real articulation of life did not start from this point, and hence work itself out to unity, but it worked up from below, developing into innumerable small circles, with different degrees of slowness and difficulty in different countries. Italy, with its long cultivated soil, with many ancient towns still existent though depopulated, with its commerce which partly had been preserved and partly was growing up afresh, and with the civil organization of its communities which had never been quite destroyed, was the first to collect together these rich remains of former culture, and developed a vigorous intellectual life in numerous small states, the emulation of which was favourable to culture whilst it hindered political unity. The great inland countries of the Continent, on the other hand, suffered from the ungenial nature of their more northerly climate, from the difficulty of internal communication, from the want of great social centres, from the inconvenient character of their medium of exchange, in short, from all that torpor of existence in which consists the darkness that generally seems to us to brood over the Middle Ages. Thus the inland countries too, like Italy, but from different causes, were at first able to form only small states.

The original communities had consisted of free owners of the soil; in conquered territories the victors were rewarded and their wants supplied by enfeoffment of tenements and lands; the undeveloped state of society made it necessary for the guidance of affairs that there should be personal representatives of the supreme power, and these held office at first temporarily and afterwards permanently; they too were provided for partly by property in land, partly by rights over certain districts; finally, in developed feudalism, the once homogeneous community was transformed into a complicated and graduated system of persons endowed on the one hand with privileges, and on the other hand burdened with obligations, both privileges and obligations binding those to whom they attached to some definite parcel of land. The country was covered with countless strongholds of the feudal lords; in the solitude of these the sense of family unity, of honour,

of purity of blood, and of reverence for tradition grew; the position of wives and mothers increased in importance; a feeling of solidarity among persons of the same rank—carrying with it in the knightly order a consciousness of having some duties with regard to human culture—bound individuals together into a certain community of life; traditions of romantic reverence and of uncompromising manly fidelity gave some moral content to life; and there even revived a taste for poetry. But neither general culture nor the development of public life made much advance under this form of society National life had ceased to exist; the chasm between the feudal lord and his vassals was bridged over by no recognised law and seldom by kindly care; between the individual communities of serfs there existed no bond of common consciousness or of legal connection. Even the order of feudal lords, united by social intercourse and similarity in mode of life, felt only that they were an order, not that they were part of a political whole for the benefit of which it was their duty to make sacrifices. Few territories were large enough for the development of a civilised life of their own; the co-operation of several was hindered by the independence of the lords—the obscurity of their mutual obligations—the lack of a general and unquestioned system of law which as these obligations gradually grew up should have developed along with them—the impossibility of carrying out sentences, when they had been pronounced, in any other way than by the exercise of force—and the ease with which a number of individuals about equal to one another in power could combine to resist legal force, which could be brought to bear only with extreme difficulty. It was only within very small communities that definite and intelligible relations existed, the state as a whole possessing only the most unwieldy machinery; care for the general welfare was crippled by the want of an established and regulated system of taxation, and external policy by the lack of a standing army and by the intricate arrangements of the feudal host; for the administration of justice there were wanting established tribunals representative of the general sense of justice, and in

almost all cases legal jurisdiction was disputable, or actually disputed, or owed its recognition to force.

In this state of things, notwithstanding all its disorder, a certain characteristic sense of justice was not lacking. The Germanic nations, with no inherited treasure of ancient civilisation, no gift of abstraction due to such an inheritance, no eye for principles, had been placed historically in circumstances which forced them to rapid development. They could not discover the universal principles of justice offhand, but every relation which had become historical forthwith seemed to them, whatever its irrationality, to be *de facto* just; it would not have arisen if it had not at the time corresponded to existing needs. Added to this was the fact that Christianity appeared to them less as a body of doctrine than as a history of past events—as among those transactions by which Providence, and not the nature of things themselves, gives laws to the course of human affairs. All that we are now accustomed to judge by universal laws of morality and justice was regarded in the Middle Ages as dependent upon divine institution, upon human appointment, upon investitures and treaties, upon the significance of particular occurrences. On account of the continual change of circumstances such a foundation for the arrangements of human life could not fail to be a most fruitful source of incessant opposition to justice which had become unjust; it produced the countless outbreaks of unbridled caprice which mark the Middle Ages. But where the opposition took a more peaceable course, this too did not proceed from abstract principles, but sought to meet the requirements of the hour by transforming particular existing laws through fresh enactments, which were themselves of equally restricted application. This kind of procedure pervaded in the most various forms every department of life. When towns began to flourish, and redeemed their territories from complicated obligations towards the feudal lords, and love of work and the moral deepening of character gained in busy spheres of labour became the fairest adornment of the closing period of the Middle Ages, then we see this full life crystallize into a multitude of

sharply defined corporations, each having its own internal system and legal relations to others, both regulated by contract, and all surrounding themselves with innumerable trade customs and symbols, and as a whole developing into organisms of which the real significance was sometimes clouded by numerous irrational additions having a merely historical justification, yet—taken altogether—becoming individualized into a most intense life. And in the imagination of the Middle Ages it was not men only but things also which had special rights —rights which were not merely measurable by natural qualities, but were in a sense historic; to times and places were attached privileges, obligations, and liberties of all descriptions.

Within this world of external life mental culture was for a long time attended to only by the Church. The Roman empire, after the recognition of Christianity, had begun to give important political posts to the clergy, who were gradually forming themselves into a separate body; their activity, stirred up by lively enthusiasm for what gave so much worth to life or by aspiring ambition, in many ways took the place of the slack civil authority; rich endowments gave them independence and the means of doing good works. Although it was a long time before the hierarchical edifice was complete, the authority of the Roman chair soon took firm root in the West, and the numerous missions which went out from every newly-established settlement felt themselves to be members of one whole. Without having been thus organized into a church, Christianity would hardly have weathered the storms of those times, and could have exercised but little of its beneficent influence upon temporal life. By the help of transmitted culture, and through the resources (whether its own or not) which its authority enabled it to command, the Church was able partly to keep invading barbarism at bay, partly to press forward itself and fill the still darkened northern countries with those churches, monasteries, episcopal residences, and agricultural settlements from which there were diffused not only the art of husbandry, but also that of gardening, not only the elements of knowledge, but also those of technical

crafts, and under the walls of which gradually reviving trade held its markets, whilst within their gates the sick and weary found tendance or healing. Thus in the early period of the Middle Ages the Church was in many respects at the head of progress and of civilisation; from it proceeded the majority of such establishments as were of general utility; from it the ignorant sought teaching, for it alone possessed the treasures of transmitted learning; to it alone could the longing go for consolation and for the resolution of their doubts, for it alone had studied all the relations of human life, and with active enthusiasm, combined the results of its reflection into one comprehensive philosophy; finally, it was to the Church that the oppressed appealed for help, for it was the Church alone that, amidst the general licence and the thirst for adventure, recognised and taught a truth that was valid for all men and a divine order of things independent of all human caprice, obeying these in a life of strict discipline, and not unfrequently asserting them with courageous self-sacrifice in defending the weakness of the oppressed against the violence of the strong.

Passing lightly over the eventful history of the Church during the Middle Ages, we find that at the end of this period its relation to secular life had very much changed; whilst the latter was making remarkable advance, the Church had fallen into the rear, and had become a hindrance to progress. It no longer led the van of science; the religious philosophy which formerly, in contrast to the scattered and wholly secular culture of antiquity, had so beneficially striven to grasp all reality and to embrace and classify all knowledge, was, after the slow decay of that culture, incapable of giving any satisfactory insight into the connection of the external world; and at the same time the secular learning of antiquity which continued to be propagated, being merely transmitted and not cultivated with that zealous interest which has re-creative efficacy, lost in breadth and precision: whilst in secular life new relations were being formed and new facts discovered, the ecclesiastical sources of instruction were becoming impoverished.

Even the cure of souls had lost its energy. With penetrating zeal the fathers of the Church had once defended the faith against all the doubts of ancient culture; and it was certainly advantageous to Germanic barbarism that there should be presented to it some definite profession of belief, but the hard and fast formulation of dogmas which thus became the cut and dried content of tradition, diminished even among the clergy the intensity of spiritual life; and the people were deprived of the little that still remained of such activity, by the use of the Latin language and the care with which the Church reserved to itself the secrets of religion and the administration of the means of grace, no longer preaching to the laity of the inner life of faith and of a new birth of the soul resulting from its own struggles, but denying them. Grievous faults had also appeared in the lives of the clergy, and they were no longer either the recognised pattern of conduct or the hope of the oppressed. They had not indeed become an hereditary ecclesiastical caste, but recruited their ranks from among the people, although no longer by means of congregational election; but the inferior clergy who lived among the people were wanting in influence and insight; those who were invested with superior dignity, and as feudatories occupied many political posts, often favoured insubordination to secular rule, but not the freedom of the laity in ecclesiastical relations.

There had never been any lack of vigorous struggles between these two great powers. The conflict between the empire and the Roman Church had led to no decisive victory of the one or the other. The empire, with its claim of sovereignty over nations between which there was no bond of union except Christianity, could not on such grounds be triumphant over the Church which demanded the same supremacy in the very name of Christianity; the Church had on its side the naturally unifying power of religion, and used the national differences to which in their secular development freedom should be allowed, as an instrument against the defectively established supremacy of secular power. But when the empire had been

obliged to let its claims drop, secular life had attained an importance of its own in a number of national developments, as the natural representatives of which the princes of the different countries could more efficiently resist the encroachments of the Church. The opposition of these temporal powers to the attempts at renewing a theocracy succeeded in proportion as they identified themselves with the national life of their respective countries; they disabled themselves where they joined with the spiritual power of the Church in the obstruction of progress. This progress itself was due partly to a further development of previous conditions which had gone on unnoticed, and had also been favoured by a striking succession of historical events and discoveries. Unceasing wars, which no longer had the character of national migrations, had kept the nations in reciprocal contact; the internal action and reaction of society was increased by the revival of trade and the growth of flourishing towns; the Crusades had for a long time united Christian nations in common enterprise; not only were Italy and Byzantium, with their inherited culture, again brought into contact with the more northern nations through these causes, but the East also, with its different customs and its treasures and marvels, roused in the nations of Christian Europe a spirit of emulation and a doubt as to the exclusive validity of the state of things which had been established among them by custom and tradition; the geographical horizon was still further enlarged by the discoveries of the Portuguese navigators; and finally the discovery of America presented to human imagination, to the spirit of adventurous enterprise and to industrial activity, openings undreamt of before, and which were to help men to become both externally and mentally wholly detached from the traditions of antiquity. At first, indeed, they tried to bring their new life into connection with antiquity, whose treasures of thought had never quite vanished from human memory; but now, on the one hand, they entered with greater zeal into the growing activity of mental life, and on the other hand the increasing danger from the Mohammedans with which Byzantium was

threatened, and its subsequent fall caused what remained of Greek learning to be transferred to Italy. Then began that revival of learning which first restored to thought (which had grown stiff and clumsy) formal flexibility and adroitness, and inundated life at once with great Ideas, with comprehensive views, with critical contempt for all existing goodness and beauty, and with an audacious imitation of the errors of antiquity. The creative force which might have given worthy content to the new forms was very backward in most directions; in Italy alone the confusion of social conditions was to some extent compensated by a magnificent flight of creative art; yet there were laid those foundations of higher mathematics and of natural science which were destined to produce the most important instruments of the new civilisation. Finally, the torpor which had long hung about the exchange of thought was removed by the discovery of printing; from that time public opinion could exercise its influence upon all the relations of life, and the awakening spirit of criticism which was to distinguish the period just beginning was armed with its most powerful weapon.

§ 8. The various germs which the end of the Middle Ages had produced, gradually bore fruit in a succession of great revolutions. They did not develop simultaneously or altogether in harmony with each other; the human mind in its onward struggle is capable of the inconsistency of maintaining in one department the same new views which in others, yielding to old-established custom, it eagerly persecutes. But amidst all such contradictory and retrogressive currents there developed, with ever-increasing power, as the distinguishing characteristic of the new age, that Enlightenment, destroying in order to reconstruct, which sought *to break the dominion of all prejudice* and *to undermine every ill-founded belief*. The spirit of modern times, to which it is essential to be constantly reflecting upon itself, has often enough used these phrases as watchwords indicative of its own characteristics, and the indication is perhaps accurate for good as well as for ill. For both the strength and the weakness of our position,

both our hopes and our fears as regards the future, depend equally upon that unchained spirit of criticism which, investigating all the relations of life with self-conscious purpose, more easily accomplishes the inevitable demolition of error, than the reconstruction of truth, and, in the zeal of its analytic incursions, runs the risk of injuring unperceived the most necessary foundations of ordered human existence. We have, perhaps, reason to give more scope to hope for the future than to fear; but above all it seems clear to us that we have not yet seen the conclusion of the developmental struggles into which the impulses of the immediate past have plunged us.

It was religious needs that first kindled the flame. The Reformation sought to lead men back from the secularization of the Church and the externalizing of ecclesiastical life to the purity of primitive Christianity. Though the positive teaching of the Reformation, far from professing to be a production of individual reason, was in fact mere submission to the authority of revelation, yet being in declared opposition to the existing order of things, it could not avoid formally recognising individual examination and decision as the starting-point even of religious life. It freed conscience from the obligation of submission to commands (proceeding not from the gospel but from tradition and from ecclesiastical speculation) which it was attempted to force upon men; and laid upon them instead the obligation, which was at the same time a privilege, of appropriating to themselves the content of faith by their own struggles towards development and their own inner experience. In doing this it ventured to hope that the result of this struggle would be agreement with that which it esteemed to be eternal truth, and to which it held fast; but it was bound to acknowledge that, though it might lament, yet it could not condemn the opposite result. The principle of free investigation of the gospel could not escape expansion into perfect freedom of conscience, in the acceptance or rejection of all Christian and finally of all religious truth whatever. For a long time the Reformation, conscious of the value of its faith, struggled against this conclusion; to it too the disposition to

persecute for faith's sake was not unknown, and when the battle for the freedom of personal conviction had been fought out, there remained doubts as to the legitimate sphere of this freedom. And these occurred first in the renewed Church itself. The very investigation of Scripture as the sole foundation of faith required the co-operation of subjective interpretation; a Church which adopted this principle could neither exclude all variation of dogmatic conviction, nor could it easily mark out definitely the limits within which such variation should be allowed for the future. In such doubts we ourselves are still involved; the only men who are sure of themselves are those who hold the most extreme views, either demanding a stricter unity of the Church at the expense of individual freedom, or an atomistic dispersion into innumerable small communities in favour of individual freedom at the expense of the universal Church. And yet between these two extremes Protestantism has gone on living and developing; for in holding fast to the principle of free investigation notwithstanding all the perplexities and difficulties of its ecclesiastical polity, it has secured the adherence of all the rich culture which has arisen from the stimulus given by itself and from the schools which were for the most part established by it.

The relation of religious profession to the state was affected by the changes which the state itself experienced, or through which it was first developed. In the Middle Ages influential connection between the different departments of life and the consciousness of solidarity occurred almost exclusively in individual minor communities, the praiseworthy and active public spirit of which could not make up for the absence of important and varied relations, and the external connections between which remained uncertain and unorganized. From this incoherent condition there sprung up the formally systematized State, with its comprehensive administration of differently endowed and mutually complementary districts, and its regulated employment of means. It arose first in the form of that absolutism which regarded the country and the people as the private property of the

ruler, and either used them despotically for the glorification of the throne, or filled the part of guardian towards them with well-meaning carelessness. Certainly in the suppression of innumerable petty sovereignties by a few great ones there was a gain in general order and security; but, on the other hand, the pressure exercised downwards by these great powers was continued, and the independence of the several communities disappeared before the centralization of national power. The age of the Revolution in shattering despotism shattered also those limits of free movement which it should have allowed to remain; in demanding equal justice and equal rights for all, an unlimited field for all activity and an open course for talent of every description, it took a hostile attitude towards all specialities of historical development in which it saw only hindrances to that freedom at which it aimed, and it carried on the work of centralization to the point of planing down as far as possible all characteristic differences. After men had seen how in the wide workshop of America success had followed the attempt to build up a construction of social order without restraint from historic tradition, and guided purely by the needs of the moment, without any greater limitation of personal freedom than those needs made necessary, and after France had gone back to the universal rights of man for the foundation of society, and had broken with history even in the externals of life, it seemed as though for the future the State would be only a great society for gathering in the treasures of Nature and carrying out the exchange of varying productions, established and governed by the will of all, and really without any moral duty of self-preservation, being indeed entitled to dissolve itself at any moment; yet with all this the fact was that the real freedom of individuals was tyrannized over by the common will of the majority. But the glory of the tremendous results which France achieved in its defensive struggle, soon brought back, in the national pride which it stirred up, a new and deeper consciousness of political coherence; other countries had not to atone so severely for the mistake of setting equality above personal

freedom, but they attained more slowly to the development of this freedom and to the rejection of many limitations which had grown up historically, and, without any absolute right, obstructed social movement.

The history of these struggles, which is full of vicissitudes, does not come within our present hasty survey; that they are not even yet ended is a wide-spread and oppressive conviction of the present age. The spirit of criticism which called them forth has triumphantly maintained many general principles, but has not been very happy in the discovery of living forms in which these principles might receive a satisfying realization in fact. It has been established that the outline of the State is not irrevocably sketched out beforehand by history, to be merely filled in by the living activity of the people, but that the State is rather the comprehensive final form which social order has to take on in order to satisfy those aims of national life which are historically possible—that State guidance and administration must always have regard to the changing needs of the hour, as well as to that connection with the historic past by which the nation is constituted a nation—that there is necessary a division of power which on the one hand allows to existing men (who have a right to live) a modifying and innovating influence, and on the other hand allows to the representatives of the permanent element in historical development a restraining and guiding influence—that as much scope must be given to voluntary combination and the self-government of communities as is necessary for the production of all the commodities and the satisfaction of all the wants which they are naturally able to produce and to satisfy, and that just as much must this freedom submit to the limitations which the safety of the whole requires. But in the representative constitutions of our own time political art has either not yet attained to adequate forms, capable of ensuring the fulfilment of these ideal ends, or the forms appeared too soon, before the spirit that knew how to make a perfectly right use of them was developed. And as an effect of the oppression that has gone before, mistrust and not trust still continues to be the

soul of constitutional life; the jealous guarding of formal political rights still outweighs understanding of and sympathy with the real ends for the attaining of which the existence of these rights is necessary; qualification for taking part in public business has not increased in the same proportion as the extension of the right to do so. Neither life nor education accustom the people sufficiently to the consciousness of important national ends. Skilfulness of co-operation in the prosecution of particular undertakings has no doubt increased; but the nature of trade, which connects the subsistence of the individual with a wide-spreading ramification of remote and foreign conditions, uproots the sense of citizenship which existed in earlier times, and which, arising from having all the interests of life in common, bound together the members of local communities; the diffusion of information has certainly made progress, but the inner progress of knowledge has been all the greater, because notwithstanding this diffusion the greatest part of the culture of which nations are proud remains wholly unknown to the majority of the people. How very indeterminate the line still is between what government should reckon among its duties and what should be left to the voluntary activity of the subject is shown by the unsettled disputes about free education, the political rights of different religious professions, and the necessity or dispensableness of a coincidence between political boundaries and the geographical limits of unmixed nationalities.

Not only life, but science also, has felt the influence of awakening criticism. During the Middle Ages minds had been ruled by traditions handed down from antiquity, and for a long time but little fresh result of investigation was added to them. From this time forward there comes out in ever growing strength that critical impulse of the Enlightenment, which indeed could never be so wholly absent in science as in other departments of life; the ingenuous setting forth of truth of which men believed themselves to be in possession gave place more and more to questions concerning the general cognisability of truth and the final principles of all judgment.

Science now first began to assume the character of an investigation which tests with careful exactness the worth and trustworthiness of its sources, considers the possible paths of progress, and is anxious to confirm its results by proofs and counter-proofs of every description, estimating even the amount of error which it is in danger of making in these proofs themselves, and allowing for such error in its deductions. By this procedure science has introduced into even the most familiar departments of human thought the idea of universal laws to which reality is obedient in all particulars, and a lively conviction that results can only be obtained by using things according to these laws. In doing this it has been able not indeed to *destroy* superstition, but to set bounds to its public and formerly bloody activity; by its astronomical discoveries it has given to imagination a new and enlarged background for cosmic theories; and by the development of mechanics and chemistry it has produced a boundless supply of instruments for the production of new commodities and the enlargement of commerce, and hence for the enlargement of men's intellectual horizon altogether, and for the increase of general wellbeing. And whilst finally it came to make not only external Nature, but also the course of events in history more and more the object of reflection, and sought to trace back to universal laws the action and reaction of human activities, and the production and exchange of commodities, it gave rise to that progressive spirit of conscious calculation that is not content to continue passively in any merely instinctive condition of being or doing, but must actively mould the future by independent use of all available means. Even within the range of this cheering human progress, sceptical and materialistic ideas and the dreams of socialism and communism show that neither firm foundations of knowledge nor practicable plans for the removal of undeniable social evils have as yet been in all cases discovered.

§ 9. The hasty survey of the external course of human development upon which we have ventured has convinced us how far hitherto human conditions have been from attaining

that satisfactory state of equilibrium which may be regarded as the completion of historical development needing only to be kept up and worked out, not to be wholly transformed. Will this development progress steadily, or will it share the fate of those great civilisations which have preceded us in history, and which, destroyed partly by internal dissolution and partly by external force, have had a fertilizing influence upon the renewed attempts of later times only when they had fallen into ruin, and even then very gradually? No one will profess to foreknow the future, but as far as men may judge, it seems that in our days there are greater safeguards than there were in antiquity against unjustifiable excesses and against the external forces which might endanger the continued existence of civilisation.

The civilisations of antiquity existed in national isolation; the general difficulty of intellectual intercourse diminished, in the Middle Ages, the benefits which might then have been derived from the unifying power of faith; now at last the different divisions of the world which have so long lived on in separation are striving to be something to one another; and the all-pervading current of interested traffic and of zeal for discovery is beginning to establish that external coherence of the human race by which the hitherto disconnected development of different sections may in the future become combined into a history of mankind. Already the wide diffusion of a culture which is on the whole homogeneous, and in which so many nations with all the varieties of national temperament participate, will prevent disturbances of development which may befall any of them in particular from becoming hindrances to human progress in general. And thus the power of barbarism over culture is broken. In consequence of the defective development of their knowledge of Nature, the civilisations of antiquity had not the weapons which would have enabled them in all cases to defend their intellectual wealth successfully against the savagery of the uncivilised world; modern culture has through the progress of the technical arts become so well armed and so warlike that the

inundation of civilised countries by tribes in a state of Nature has long ceased to be a probable danger; on the contrary, the assuredness of the influence exercised by civilisation as a whole upon the destinies of all parts of the world grows from day to day, though the regions thus affected may be too extensive to be as yet thoroughly pervaded individually by such influences.

And if by this extension in space, human culture has become established on too broad a basis to be easily washed away altogether even by a tremendous wave of barbarism, it has also attained internally, as the result of all its evolutionary struggles, a balance which throws its centre of gravity deeper than in the past, below the surface depth which is commonly disturbed by sudden currents. From the best features of many scientific researches which have failed in detail—from the increasing clearness of our retrospective survey of history and of human error—from the experiences of life itself which teaches us, in the exchange of necessaries, to have a due appreciation of what is foreign—from the wonderful advance in interchange of opinion which disturbs the one-sidedness of narrow intellectual views, bringing many currents of thought into beneficial mutual action, and unceasingly urging men to the exercise of comparison—from all these roots there has grown up, in the spirit of the present age, that peculiar temperament or dominant mood which we may distinguish by the name of Modern Humanism.

The difference between human development and the mental constitution of the lower animals consists chiefly in this, that the soul of animals is roused directly by a limited circle of perceptions to sudden and disconnected action; whilst the human spirit, far less endowed by Nature with instincts consciously directed towards their ends, has first to collect a copious store of experiences in the daily school of life, and by calm elaboration of them to work out gradually the motives of coherent action. An intensification of this self-control which distinguishes human activity as a whole from animal impulse is in a certain sense, and to a certain extent, a

distinguishing characteristic of modern civilisation. Not indeed by any means because greater thoughtfulness is among the special merits of modern men and women, but because without any merit of theirs all the circumstances of life, education, and tradition under the influence of which they find themselves, are full of motives adverse to precipitate action, exercising externally as much influence in hindering the unrestrained outbreak of individual desires as they exercise internally in diminishing the effect upon the mind of innumerable exciting impressions. After all imaginable interests in life have been discussed and criticised from the most different points of view, and all these discussions and criticisms have, however much weakened and obscured, become part of the common consciousness, the world is less easily interested and less credulous than it was before; always indeed fertile in the production of strange views and heady schemes, but more moderate in its admiration for and its devotion to the improbable. In its bad form—that *used-up* condition in which all higher aims and all motives to action generally have lost their stimulative force—we may find this peculiarity of our own age repulsive, and all the more so in proportion as we know it only in the present and from living experience; but as a matter of fact it is the case that this *aweary-ness* of a great part of mankind has not been lacking in any age which has produced a multiform civilisation abounding in sharp contrasts. And it has never either now or earlier taken possession of the whole race; but now more than previously there has developed alongside of this sterile passionlessness an allied but more earnest temper—tolerant, circumspect, and self-controlled—which among so many unfinished social constructions yet makes possible for us a life abounding in worthy pleasures, and keeps up our hopes of continuous progress.

This refined conscience of modern society makes itself felt in the most various departments of life. Not that it is able to get its commands obeyed without any trouble, or that the men of to-day are incomparably superior to those of the past

in the excellence of their private morality; on the contrary, human nature is ever the same, and continues to resist the restraints imposed upon it with all its inherited passion and perversity, and evil and folly. But now it feels the reins drawn tighter; while every new generation is born with the old impulses and the old imperfections of its kind, each is forced to recognise the truth of the progressive moral insight with which growing civilisation gradually interpenetrates all the relations of life, as with a conscience that is ever becoming more fully awakened, and the utterances of which force themselves even upon the unwilling. Perhaps modern humanity falls further short of the increased demands of this conscience than the humanity of previous times did of the simpler and less complex demands of the conscience of its day; and a desponding view may attempt to depreciate modern civilisation even in comparison of the natural open savagery of past times, regarding such civilisation as mere surface polish and hypocrisy; but to us it seems that the very fact that hypocrisy is needed is a mark of progress, and that much that is base is now obliged at least to cloak itself, whereas formerly it would have ventured to show in its true colours. Upon the steady progressive development of this conscience, upon the pressure which it exercises on willing and unwilling alike, our hopes for the future rest; to a certain extent human action will be obliged to conform to it. Ambition with its lust of oppression will always remain; but the days are numbered in which men will attempt to justify slavery as such in the eyes of public opinion. The political destiny of nations may yet have many melancholy revolutions in store, for in order that practical injustice may be effectually prevented, comprehension of the existing position of affairs in any particular case and the improvement of favourable opportunities must be in accordance with the general conviction; still it is to be hoped that sentence of condemnation has already been passed on all invasions of the freedom and honour of individual life. Many attempts to interfere with liberty of conscience, to re-establish exploded religious dogmas,

and to revive strange forms of worship may yet be made; but they will never permanently succeed beyond the lines which some will find drawn by the spirit of independence, others by scientific taste, and the rest by the general sense of moral fitness which belongs to modern Humanism.

Such are our hopes for the future; but what is the end of all? Is there any such end in the sense of a goal which is to be reached, of a state of perfection which will be the conclusion and as it were the final accomplishment of all preceding historical struggles—and if such a perfect condition of things should be reached, will it last on to all eternity? Or is there no such goal, and will the progress of mankind cease for no other reason than that of having exhausted all external means of advance, and will the imperfect condition then reached (which the inherent defects of human nature will not permit it to transcend) present that action of mankind (at last become uniform) which it is destined to carry on *ad infinitum?* Or, finally, may not things go on for ever as they have done in the course of history hitherto? Will not every civilisation that seemed to have been destined for eternal duration always be brought to ruin by some unexpected fate, and with every advance in one direction will there not be bound up a loss in some other direction, so that the sum of human perfection and of human happiness may always be a tolerably constant quantity, if we take, one with another—success and the exertion it necessitates, gain and loss, the growing wealth of civilisation and the increasing difficulty of full participation in it?

The boastful days are over in which speculation flattered itself that it possessed the answers to these questions. Our intellectual horizon has gradually become wider again. We have bethought us that the history to which we can look back as sufficiently well known to form a judgment upon is of very limited extent; it embraces the classical nations, the European Middle Ages, and the immediate past. In this small and coherent fragment of development in which the parts are connected by tradition, it may well be that we can trace a

progressive advance. We do indeed all lament that the beauty of antique life has passed away—a beauty which men have never been able to recover in modern times, in which more northern countries have become the scene of the most active development; but seeing that the ruin of antique life lies before us as an accomplished fact, we might easily point out the defects of civilisation from which that ruin proceeded. These were only partially avoided in the Middle Ages—a period which, notwithstanding its want of political and social stability and unity, notwithstanding its strange mixture of profound mental life and indescribable barbarism, yet shows us a splendour of Christianity and a variety of individual development with which we can sympathize; and shows them as being, though not perhaps themselves actually higher stages of development, yet hopeful steps toward such. Far other was the aspect which this period wore in its own estimation; more than once it seemed to the minds of men, horror-struck by the boundless misery which existed, that the end of the world must be close at hand. The gradual development of the modern European political systems and of modern society was without doubt another swiftly advancing wave of evolution, when looked at in comparison with the immediately preceding period; borne upon its summit the speculation of the age might momentarily have taken a view of history according to which it would seem that no further development was to be attained in the future, but that the evolution of the human race had, in kind at least, reached its conclusion, and that the only growth remaining for it was an extension on all sides. But since then we have become more cautious with regard both to the past and to the future.

Growing acquaintance with pre-classical civilisations is already beginning to arouse in us misgivings of having undervalued them in many respects. It is certain that they exhibited such a full and complex and active life that it is impossible to regard them as a mere unimportant prelude to European history. Our acquaintance with them is still but too meagre, since their literatures, which are the only thoroughly trustworthy

witnesses of the depth and character of mental life, are partly lost to us and partly are difficult of access; hence we are now unquestionably as much in danger of over-estimation as we were formerly in danger of inconsiderate neglect. But a philosophy of human history can give no satisfactory results concerning the course and the amount of its actual progress before these long ages of past time have become known, and their performances been compared with what we have hitherto regarded as the advances of later periods. On the other hand, the progress of mechanical art which has provided new means and resources, and of the economic sciences which have produced a better adjustment to human needs of the means for their satisfaction, has caused our attention to be directed more than ever towards the future; the aggregate of all that it has to do, alter, procure, and arrange has never been present in such distinctness and importance to the consciousness of any previous age; no time has lived so fully as the present in definite plans for the future; we feel ourselves more stirred up to try and promote progress for the future than to investigate the steps it has made in past history.

So now again the future stretches out before us, more full of significance than ever, and we can fill it with dreams of boundless progress. But the course of history has already been so long that in looking back upon it we shall soon find ourselves obliged to confine our hopes within a narrower compass; for plainly the regions within which there is any great probability of unlimited progress are very definitely circumscribed, and for all others the probability is but very slight. The splendid initiation of the rule over matter and its forces which rejoices us in the natural sciences, having been made once for all, we may reckon upon a rapid succession of new discoveries. From these may be anticipated a varied increase in the conveniences of life, greater facility in the satisfying of our wants, and purposive alteration of many of our customs; the enriching of some favourably situated countries by increased use of natural resources and the addition of others to the abodes of civilisation; increase of the population of the earth, and a manifold

heightening of the activity of commerce. All sciences which combine facts of experience according to clear and simple laws of thought have the prospect of making continuous advances towards perfection; they will not only extend their knowledge of particulars, but will also learn by the discovery of new laws to understand better the coherence of all reality. These general results may be expected to exercise a favourable and gradually increasing influence even upon those sciences which, transcending experience and real existence and searching after God and divine things, early accumulated a store of valuable thoughts, but during the thousands of years that have passed since then have not been able to make any important addition to their early stock; and the progress may also be shared by that practical wisdom which has to deal with the necessary aims of our action, the binding commands of conscience, and beneficent social constructions.

But whilst this world of truth and of Ideas increases, human nature will not change, and life will always remain a long way behind the ideals that are set before successive generations. There will never be one fold and one shepherd, never one uniform culture for all mankind, never universal nobleness; but strife and inequalities of condition and the vital strength of evil will always continue. And we do not think this prospect desperate; for it does not seem to us that all history is so bounded by the limits of earthly life that we needs must see the dawn upon earth of its brilliant closing scene, that golden future which we dream of. On the contrary, as long as men are bound by their bodily organization to the material wants of life, their perfection and happiness must also be bound up with imperfection and ill, just as inevitably as any of our modes of progression both presuppose and at the same time overcome external friction. Both our virtues and our happiness can only flourish in the midst of an active conflict with wrong, in the midst of the self-denials which society imposes on us, and amid the doubts into which we are plunged by the uncertainty of the future and of the results of our efforts. If there were ever to come a future in which

every stumbling-block were smoothed away, then, indeed, mankind would be as one flock; but then, no longer like men but like a flock of innocent brutes they would feed on the good things provided by Nature, with the same unconscious simplicity as they did at the beginning of that long course of civilisation, the results of which, up to the present time, we shall now briefly consider, as a sequel to the review we have already taken of the external destinies of the human race.

# BOOK VIII.

## PROGRESS.

# CHAPTER I.

## TRUTH AND SCIENCE.

Stages of Philosophic Thought: Mythologic Fancy; Cultured Reflection; Development of Greek Thought; Science—Over-estimation of Logical Forms and Confusion of them with Matter-of-Fact—Philosophic Problems of Christian Thought — Limitation of Thought to the Elaboration of Experiences—The Exact Sciences—The Principal Standpoints of Philosophy, and its Efforts in trying to reach a Knowledge of the Nature of Things—Idealism and Realism.

§ 1. THOSE various embryon impulses from the development of which all human civilisation has grown up, have always sprung to life simultaneously as products of one common root, the unchanging nature of mind. Different periods of history may be pointed out in which one after the other, religion, art, science, law, and social problems, have become for the first time so distinctly present to the consciousness of mankind, that they seem to have been then first discovered or invented, to the advantage of future ages; but even in the very beginning of civilisation there could not have been altogether absent any one of those activities of the human soul which later became more clearly differentiated one from another, taking separate paths to various ends. And all are in continual mutual action as far as their requirements and results are concerned; and this most actively in just those times of dawning civilisation in which as yet none of them have found either cause or possibility of independent further development, in the possession of the wealth of some special department and in the peculiar mode of procedure made necessary by the nature of that department.

So if we try to survey this complicated whole of human civilisation as far as lies within the scope of our general intention, we cannot follow any one of the stems from which it has sprung without meeting ramifications by which each

communicates with the rest. Yet still in the history of the development of the whole mind, the development of scientific knowledge takes a certain specially favoured position. Whatever may be the several roots from which spring the creative impulses of art, or the moral convictions of religious belief, they are all, as regards the fulness and trustworthiness of their development, dependent partly upon the extent to which this knowledge subordinates reality to its sovereign influence, and partly upon the clearness with which each has come to comprehend itself, its tasks, and its instruments. To scientific knowledge therefore as the general form under which all activities of the mind reciprocally test each other, reflect upon themselves, and bring their results together for transmission, the beginning of the present considerations may be devoted. In view of the immensity of the subject, we shall only briefly refer to that gradual extension of cognitive knowledge which with every fresh conquest both furnishes human activity with new aims and also gives a different colouring to our whole philosophy. But even the progressive self-comprehension of scientific knowledge, and the development of a definite conception of truth for which we are seeking, and enlightenment concerning the intellectual means to these ends which are at our command—even these points we shall only be able to consider with a one-sidedness of which we are fully conscious, selecting a few points of view specially suited to our purpose.

Of three essentially different ways of looking at reality which the awakening consciousness of mankind has gradually come to adopt, we find the earliest in that mythologic philosophy to which at the very beginning of this work our attention was directed by more restricted considerations. Intensifying the impressions of perception so as to influence the whole mental mood, imagination—here going beyond perception—makes to the reality which it finds those additions which seem to be demanded by the vague feeling of a contradiction between that reality and the tacit presuppositions of our minds. For every myth which gives a new and poetic form to some phænomenon, bears witness to the activity of

human cognition, that can seldom be satisfied with direct perception because the content of this but seldom harmonizes with those unanalysed demands which our mind brings with it to the comprehension of reality, whether as innate endowment or as the rapidly acquired fruit of previous experience. But mythologic fancy has not a clear consciousness either of the full content of the truth which it thinks it must recognise in phænomena, or of the definite contradictions of truth which cause mere facts to seem to demand some mythical and explanatory transformation. The soul rejoices in the enjoyment of its own activity, and is without suspicion of the numerous conditioning causes which go to produce its happiness—a happiness which, though it seems to arise without trouble and as a matter of course, is yet a result laboriously produced;—it is accustomed to see changes of the external world arise from its own activity, and hence as yet it knows no truth other than life, and no problem of cognition other than that of recognising in all the forms and events of Nature an energy analogous to its own. It seems to it that nothing has a claim to exist except that which, if not itself mental energy, may yet be understood as the action of some mind or as the traces left by some such action; only those qualities and events seem to it natural which have sprung from the activity of a living soul, or which have arisen in some course of events incidentally set going by spiritual activity intentionally or unintentionally. It is true, indeed, that the unfamiliar character of particular natural phænomena may cause the attention of the imagination to be specially directed to them, but that which incites men to give them mythic expression is to be found not so much in the particular characteristics which constitute their unfamiliarity as in the fact that they seem to appear without any explanatory history, which by connecting them with spiritual life should afford a justification for their existence. The notion of an unconditioned factual self-dependent existence remains unaccepted; unrecognised the thought of a *nature of things* which, independent of all spiritual life and preceding it as of much more primary necessity, should produce the succession of

phænomena as its own inherent logical consequence. Not that the assumption of such a necessary connection of things has not constantly afforded secret aid to mythology in the combination of its personifying ideas. For in fact the briefest account cannot explain any striking natural phænomenon by a history of how it arose without assuming that the connection, transition, and succession between any two events which it brings together are to be comprehended by reference to an order of events which is of universal validity. But fancy (whilst in all its flights it tacitly relies upon that necessary connection of all things upon which also ordinary practical life must depend at every step) altogether overlooks this part of its own procedure, and is not conscious of the indispensable help which this nature of things affords in giving reality to imaginative constructions; for such a philosophy anything which seems full of meaning and significance has within itself all necessary guarantees of its truth and reality; and it is that which is living, or produced by what is living, that is pre-eminently full of meaning.

If this way of looking at the world were something that merely *had been*, it would be hardly worth this renewed mention; but the same impulses which led to it at the beginning of civilisation still continue to influence every human mind, even after the discovery of other points of view. In all ages the popular imagination explains the phænomena of Nature as resulting from something that had previously occurred. Since this or that happened, the bird sings such a song, the blossoms of such a plant are white instead of red; since something else, the bean has been slit in two and the salamander has had a spotted skin. But this tendency of thought, which in such examples pleases us as poetic licence for which we make allowance, has a much stronger hold upon us in other ways. There comes to all of us a time in our life in which a general dissatisfaction begins to overshadow the reality which we had previously accepted and enjoyed in all simplicity, while yet a hitherto hidden light seems to shine through the gloom. Innumerable particular perceptions

which we have not specially noted have filled us with a feeling of the surpassing reality of beauty and goodness and holiness; innumerable others, just as unanalysed, have produced in us disconnected impressions of the confusion and uncertainty and evanescence under the burden of which all reality suffers. And now this world of perception is to us no longer the world of truth, but a mere world of perplexed phænomena; but we are able to look through it to another and better world of real and ideal existence, to which the enthusiasm of our soul would fain take flight. We of the present day, however, are in our education and the conditions of our life in the midst of the results of a labour of thought that has lasted for centuries—results which surround us like an atmosphere of the presence of which we are not conscious; and we are thus not likely to be carried by any flight of such enthusiasm to a mythology which would be dispersed and dissipated if brought into contact with daily experience, with which it is in contradiction. But still we find ourselves travelling the same path which fancy took when it created such a mythology, in our youthful attempts to transform the supposed real world of our dreams and forebodings into a shape in which it may become an object of distinct intuition.

Youth strives to get from particulars to the whole, and not to the universal; it seeks more earnestly for the one meaning of any phænomenon than for the numerous conditions of its realization; and it would always much sooner discover the unity of the thought which binds together the disconnected fragments of the cosmic course as living members of a beauti- and harmonious whole, than inquire after the unattractive conditions, upon the universal validity of which depends the possibility of all beauty and of all connection of parts into a whole. Memory will tell each of us that our youthful dreams took this turn. We should hardly have been able to say why exactly it was that we were not satisfied with what reality offered; still it was the case that reality could not justify itself to our unanalysed dissatisfaction, and still less was it comparable with the indescribably fair content of the dream

which hovered before us in indistinct splendour. And then led away by the splendour of this dream we set to work to, as it were, develop afresh from it the whole fulness of reality; for what else could the unrest be which filled us and urged our imagination to artistic production, than that very creative principle itself which is embodied in this world of phænomena? And what we attempted seemed to succeed; as note can be joined to note to frame a melody, so one form gave rise to another, and one thought to another, and seemed to interpret to us the secret meaning and the inner connection of phænomena. With the most unsuspecting confidingness we put our trust in the poetic justice which was the law of our imaginative constructions, and accepted it in lieu of that proof of their truth which we lacked; deaf to every reminder of universal laws (which without being themselves the highest, seemed to limit that which was highest), we passed by with utter disregard those actual facts which were in contradiction to our dreams. Thus we shared the conviction of mythology that that alone which is worthy truly exists; only that while mythology sought the worth of all existence in the joy of some animate life which it conceived of as similar to our own, the present more advanced development of thought led us to other ways—less obvious, though perhaps not more true—of embodying the ideal, which we reverenced as exercising unconditioned power over all reality and as the secret source of its evolutionary energy. And just as mythology forced the analogies of human spirit-life upon natural objects the furthest removed from any likeness to us, so we have imposed upon the nature of things the meaning and connection which our mind in moods of dream and misgiving demands for the satisfaction of its unanalysed needs. And in this lies the strength as well as the weakness of these attempts, which are not peculiar to youth but are frequently repeated by science, though in the more modest forms which an increased experience of life forces them to assume. Their strength, I say; for having sprung from a powerful agitation of the soul, which intensifies all the deepest longings of the mind so that

they become a living mood, these efforts are real experiences in quite another sense than the thoughts which calm reflection attaches to phænomena at a later stage, with greater reserve, and as it were more on the surface; this living intuition may divine many a truth, many a relation between things which more deliberate thought would discover either laboriously or not at all. For in truth it must be even as we were taught by the feeling which animated our dreams—it must be that that which is worthy is that which truly is, and there will come a time when the soul which has learnt to know itself will be able to return to this re-acknowledgment of its primal faith. But it will have to overcome the weakness which led its early efforts astray. Instead of being as it were mastered by the feeling, it must seek to become master of it; it must not let the seeds of truth spring up from the soil of a passionate mood, in a series of poetical developments, along with seeds of the most casual errors and of "idols of the cave," but must learn to follow the course of things along the path which it really takes.

§ 2. Helped by the thought of long ages of past time, a rich inherited stock upon which we can draw, it is easy for us to give up an inadequate standpoint—a standpoint, however, after reaching which historical development of human consciousness had to traverse a long distance before attaining a more tenable position. The mythological beginning, both in history and in the life of the individual, is followed by a period of active and inquisitive reflection; meditation, no longer supplementing the world by poetic inventions, gives itself to a consideration of the course of events, and gradually works out to greater clearness the idea of a *nature of things*, with regard to which the proper attitude of the human mind is one of docile recognition. In mythological philosophy it was only the notion of Destiny which had any reference to a necessity regulating the connection of things; but this view of necessity was not such as to be favourable to the development of knowledge. For Destiny, wholly devoid of cause or reason, did not bind the course of events to general laws, which as universally

valid truth would rule in unnumbered similar cases, but it connected together particular events by a link which, because destitute of law, must be also incomprehensible. Not knowledge but prophetic inspiration, not thought which from a basis of reason calculates what must happen but intuition that becomes aware by signs of some approaching event, was the faculty to which this necessity revealed itself. Gradually at first, by steps which cannot be historically traced but may be conjectured, a fitful awe of incomprehensible fate passes into the clearer thought of a necessity which as being the *nature of the thing* is no longer regarded as joining things together fortuitously, but as joining, according to general points of view, things which have a connection with each other. This transformation of view, with which for the first time self-existent truth as an object of scientific knowledge is brought face to face with intelligent cognition as the instrument of its comprehension, was no doubt due to an impulse originating in the fact that life itself urges men on the one hand to an industrious cultivation of Nature, and on the other hand to the establishment of social relations. Both were impossible without the practical application of general rules of judgment, of which, later on, dawning reflection had to become conscious as forming the principles of its procedure. And these rules denied equally both the unregulated supremacy of a blind fate, and the self-sufficiency, the power of self-realization, which had been attributed to everything that had intrinsic worth.

In contrast to the temper of youth, this new conception of the world commonly appears in the development of the individual as the culture which results from life and the experience of life, and there is between the two phases an undeclared hostility. The idealism of youth, with its confidence of being able to bring all reality into subjection to its fairest dreams, is broken in upon by the realism of riper age which gives calm recognition even to what is unimportant when it occurs as a fact, as one of the unalterable fashions of the world's course. For there comes a time in our lives when the heart grows weary of fiction, and hungers and thirsts for

reality; there is an indescribable joy in the consciousness of having gained insight into a part of that which not only stirs our longing, but surrounds and upholds us with the incomprehensible charm of reality, and the mind of the observer is conscious that such a feeling raises it infinitely above the pleasing but unstable moods which once filled its being. To the reproach of having become unreceptive to the ideals of youth, it rejoins that it has now learnt instead the virtue of renunciation, and does not forcibly transfer to the world the results of subjective intuition, but is content to learn with awe and humility, from a comparison of experiences, as much of the nature of things as they themselves reveal. And now indeed the individual can hardly expect that in his limited sphere of experience the secrets of the universe should be fully unveiled to him. Fixing his attention at different points of experience, he will have to content himself with discovering the proximate causes of some special groups of phænomena without reaching the ultimate principles upon which their whole variety depends. This fragmentary method characterizes the teaching of life throughout. Many trains of thought starting from particular natural processes, energetically follow out the connected course of these processes for a time, but come to an end when they have found the *axiomata media*, beyond which abstraction from perception cannot proceed. Various maxims arise from the consideration of conduct, often bringing together and answering cognate questions with great acuteness of discernment, but unconcerned both about first principles and about their own contradictions of one another. But even in the very want of connection and unity which marks this living development there is a charm which fills it with a sense of wellbeing—the charm of half revelation. If to our view the topmost summits of reality are veiled in mist, they appear as a whole only so much the vaster and more infinite; even the contradictions to which we are led by a consideration of its different parts strengthen the sense of submissive security with which we consider, and merge ourselves in, a world so vast as to be able to present to us such

different aspects on the different sides which it turns towards us. Reverence for the inherent truth of anything is greater in this mood than it was in the enthusiasm of youth, and he who has experienced it will find that the suggestive poetry of this prose is more profound and more full of content than the sparkling foam of youthful dithyrambs.

§ 3. In the history of mankind we can trace this evolution of consciousness nowhere but in the gradual development of Greek science. It seems that Greek philosophy, following this path of a living development having many starting-points, was occupied (until it reached its culminating point in Plato and Aristotle) in trying to arouse everywhere a consciousness of the existence of a truth, and of a nature of things, which constituted possible objects of human cognition. Making guesses and using the analogies of perception with more or less penetration, it made repeated attempts to obtain a provisional formula for the content of truth before it turned its attention to consciousness itself, and inquiring into the nature and instruments of human cognition, passed from the fragmentary activity of living development to the coherent method of scientific investigation. For the rapid survey which it is our present object to make, its particular doctrines are indifferent; what is important is the general condition of human culture and insight which its procedure reveals.

Poetry had early succeeded in expressing the results of life's experiences in striking pictures and in general reflections. And when the first Greek sages appeared enunciating gnomes—such as that which blames all excess, or that which connects every suretyship with some fatality, or that which exhorts men to self-examination—what they said seemed to contain much less than was already familiar to the poetic consciousness of the nation, and thus they appeared to be behind the civilisation of their own time. But if this had really been the case, they would not have received the admiration which has connected their names with the dawn of philosophy. The first awakening of the scientific spirit always causes surprise, not by its unusual wealth of new

matter, but by its special mode of regarding that which is already known. Compared with the wealth of thought which the national mind possesses in its poesy and employs in life, the infancy of science always appears inexplicably meagre; it is only a high degree of perfection which enables it (by means of discoveries which it alone can then make) to be supreme among the mental activities of life. The rich variety of Homeric characters and the soul-painting of Sophoclean art had caused the Greeks to see clearly and sympathize warmly with all the depths of spiritual life, long before its dawning speculation could answer (even with the most inadequate and superficial conjectures) the question what the soul is in itself. But such special instances are unnecessary. Language itself shows in its structure and use the great chasm that exists between the wealth of spontaneous living thought and the poverty of reflection which strives to analyse its own procedure. Without the trouble of seeking, and with the certainty of a somnambulist, the most uncultured mind finds and uses forms of expression which language has invented for him, indicating the finest shades of difference in the relations of things, of events, and of thoughts; but even with the help of the most complete apparatus of words of "second intention," he would be wholly incapable of rendering to himself or others any precise account of the content of the thoughts which he expresses (as easily as he breathes) in forms of language the use of which has become a living habit to him. From this mere thinking life to self-conscious thought a decisive step was taken by those first sages. When they expressed their familiar and to some extent unimportant truths as simple sayings detached from poetical surroundings, constantly repeating them with the same emphatic simplicity, they gave to their content a new form and with this a new value. They roused the attention of the mind to the fact that the general maxims with which so often before it had as it were toyed unsuspectingly are not mere breathing-places for the soul when roused to excitement by a consideration of events; but that they are in all serious-

ness real laws of the cosmic order, fragments of that self-existent truth, that nature of things, to the recognition of which the fully awakened consciousness had to apply itself. Hence these sayings, although founded on particular cases of experience and referring to them in their phrasing, plainly had a general symbolic meaning; they showed that in other departments as well—everywhere in fact—similar conditions governed the connection of events.

The study of Nature passed through the same stages as the study of human life. When we see all phænomena derived sometimes from water, sometimes from air, now from fire, and then from the confusion of chaos, or by determination of the indeterminate, we are surprised at the poverty of this conception of Nature when compared with mythology, which knew all this and much more, and which reproduced the characteristics of phænomena with much more penetrating subtlety. We may think it strange that when Anaxagoras declared νοῦς to be the principle of the universe, without being able to apply this thought to any particulars of perception, he should have seemed to his contemporaries to be announcing something great and new; for not only had mythology always had the same notion, but it had also been able to show, after its own fashion, how νοῦς works in Nature in individual cases. But only after its own fashion; it is easily seen that notwithstanding all the poverty of its content the dawning philosophy was new because of the different mode in which it apprehended things. Whilst fancy hitherto had merely gone on to dream after dream of phænomenal beauty, reflection now became ever more and more conscious of that universal necessity which, as the nature of things, gives order, tension, and stability to the whole world of phænomena; and the unskilful essays which followed one another in rapid succession helped to form ever clearer and clearer notions of primal matter, primal force, and universal modes of motion from which individual creatures and events proceeded, as results brought about after various fashions. But there still went on working the youthfulness

of thought, which hankers after intuitive perception and is led away by circumstantial histories of the origin of things from investigating the final conditions of their reality. In order to indicate that content of the really existent which it strove to grasp, the mind turned at first to remarkable phænomena of internal and external experience; and brought into prominence as the essential principles of the universe those comparatively permanent and universal phænomena by which, as Matter or Cause, the rest were in various ways conditioned. From such notions as that the really existent is water or air, more practised reflection has in course of time risen to more abstract determination; the Infinite, the One, Measure, Order, gradually took the place of the more sensuous early notions. But all these changing dicta belonged, as far as form went, to the "contingent aspects" of growing development. Of course each of these principles was chosen because it seemed to possess the qualities which the prejudices of natural thought require in that which is to be accepted as the supreme principle. But these principles were not analysed, nor comprehended in all their fulness, and one or another guided individual thought according as it seemed from some accidental cause to be more clear to consciousness; the particular thought which corresponded to his own obvious requirement was one-sidedly regarded by each as the whole content of the supreme principle, and he thus came to regard the whole principle as being embodied in the phænomenon which rendered that thought most strikingly perceptible to the senses.

In this process of reflection there were traces of recent emergence from mythical philosophy, from which also another heritage had descended to it—that reverence for symmetrical and rhythmical forms of occurrence in the order of events which would very naturally arise when the mind, though it no longer sought in the world a direct copy of its own spiritual life and its own joy in existence, yet strove to find (as it were in compensation for this) in the independent nature of things which it began to recognise, a perfection peculiar to that nature.

In the real existence which men sought for, the ideas of all goodness and beauty and holiness were so blended with the idea of reality, that the æsthetic relations of form indicated by the former expressions, seemed to belong also to the essential nature of reality itself. This notion of the necessary symmetry of the really existent (which no doubt contains a kernel of truth the more exact determination of which is worth a searching investigation) is an assumption which has influenced the philosophic conceptions of all periods, and it has not lost its power in modern times; the early ages of antiquity were wholly swayed by it. Long after people had begun to speak of the laws of things, these laws were not understood as general rules of the behaviour of phænomena which did not in themselves require any definite form of phænomenal occurrence, this being determined by the peculiarities of the special cases to which they were applied; they were, on the contrary, regarded as definite, symmetrically ordered, harmonious rhythms in the occurrence of phænomena—rhythms intuitively perceptible which, since they embrace the universe, determine the direction of every individual's movement. For a long time the tendency of reflection was to class the fates of individuals under great existential habits of the universe; the attempt to explain the final form of cosmic order as resulting from the reciprocal action of individual circumstances, was made later. At the stage to which we are now referring, the thought of the whole which with predetermined form and development precedes the parts, quite outweighed the thought of general laws, which first enable the parts to form a whole or the whole to be built up of parts.

§ 4. Tradition connects with the name of Socrates the record of the step by which living reflection was first led into the methodical path of scientific cognition. Earlier speculation had imagined that it could only discover that nature of things which is the source of all concrete objects by a process of guessing, which had to penetrate through all kinds of phænomenal obscuration, in order that, far behind them, it

might find the being itself. The objects of Nature that surround us, and the events that take place among them, were then connected with the real being, not indeed by something that had happened, but by something that was continually happening—whether this was conceived under the form of an element that, passing through many intermediate stages, had transformed itself into the multiplicity of individual things, or as an order and a rhythm that can only be fully perceived in the great whole, and that seems to vanish in parts and individuals of that whole, through inexplicable contradictory fluctuations. Now for the first time it became clear to men's minds that the nature of things is present everywhere, that its connection with the existing world is not a connection dependent on history, but is of the essence of the world—that this nature consists not in any one element, not in any one definite form of existence, but in a Truth which, ever the same in small things and in great, joins all parts of the world, and is the very nerve of connection between them. It was from this third standpoint that cognising knowledge first became possible; for now for the first time there was a cause and basis for ever-present necessities of thought, instead of the merely historical cosmic facts which formerly men had been able to guess, to describe, or to observe without comprehending them. Yet it was very long before the fruits of this new standpoint became to any extent matured, and the injurious effects, which the deficiencies of the first historical harvest in this field left to posterity, have not even yet all disappeared.

That the objects of observation and the various images which fill our thoughts may be co-ordinated under general class concepts, and that the content of these concepts is eternally the same, and is what it is, freed from all the mutation and change to which its particular manifestations in actual fact are subject—these two apparently insignificant discoveries mark the beginning of the new period. These two insignificant discoveries, I say; for they only revealed what the living course of human thought had always pos-

sessed; and yet they both had very important results. For long as it was since language had begun to indicate in words the general concepts of things (as indeed it was inevitable that it should), consciousness had still continued unaware of what it was about; and even for the contemporaries of Socrates it was hard to see that the convenience of using a common name for different things arose from their dependence upon something which was common to them all, and in all self-identical. And inevitably as both reflection and practice had tacitly assumed the unchanging self-identity of every notion and every determination of things, yet the theoretic consideration of reality had led to confused ideas of an eternal flux of all things, in which the mutability of reality had come to be regarded as involving also the mutability of truth, and every fixed standard of fluctuating particulars was lost sight of. As opposed to this incapacity and that confusion, the conscious emphasizing of universally valid truth (narrow as the view of its content might as yet be) appeared as the first basis on which a firm position might be taken up, and from which further advances might proceed. After men had long been striving to grasp the highest real existence at one bound, as it were, there began the logical period of thought, in which it became possible for men to attempt first of all to make clear what must necessarily be required in that which was the goal of their desires; and then, and only then, to ask whether that which satisfies these requirements is to be found, and if so, where?

This newly-gained insight set two tasks for further development to accomplish: first, that of becoming conscious of the forms and principles of procedure which are indispensable for observation and for the connection of our thoughts in order to reach that which the thinking mind should accept as truth; the foundations of this logical science were laid in a masterly manner by antiquity, but the science was left far from complete. Just as unavoidable was the second problem—the inquiry as to the worth which all these laws of thought (inevitable for our intelligence) possess as regards the compre-

hension of truth and acquaintance with things themselves; and neither in ancient times, nor in the long course of development which science has since then passed through, has this investigation reached a solution of manifold doubts, which in their most general form we must now consider, as far as they can be made intelligible without systematic scientific investigation.

If in common life we seek by a comparison of apparent signs, by the use of numerous analogies, and by inferring back from results to their causes, to ascertain some secret, hidden, or forgotten fact, we do not doubt that all the indirect courses thus taken by our thought are means which are only necessary for *us* who seek; necessary because of the position we are placed in as regards the object of our search; we do not suppose that the nature of the thing itself which we are desirous of explaining has gone through a similar series of steps in the course of its development. The course which our thought has taken is therefore regarded by us as merely our subjective mode of procedure, and as the result of this we hope indeed to arrive finally at a knowledge of the nature of our object; but we do not imagine that our labour, while it is in progress, is an exact reflection step for step of that inner process of development by which the object was formed, or of the inner coherence by which its actual existence is maintained. This notion of the relation of thought to its object, which appears unsought in such cases, contains in combination two assertions which are sometimes separated into two opposed views. Every useful instrument must fulfil two requirements; in the first place it must be suited to the hand that is to use it, and in the second place it must be suited to the nature of the object to which it is to be applied. Just in the same way the processes of thought must be determined both by the nature of the thinking subject, and also by the nature of its objects. But the peculiarities imposed upon it by these several conditions cannot be quite the same.

The intelligence of finite beings is not placed at the centre of the universe, and cannot grasp at once the whole of reality

in the true and natural relations of dependence which subsist between all its parts; placed amid phænomena it finds itself face to face rather with the derivative properties of things than with their nature, and much oftener with results than causes; it is forced to become acquainted successively with the parts of a coexistent whole. Thus there arise in our thought an immense number of necessary activities of discrimination, combination, and relation, which are all merely preparatory formal means of knowledge, and to which we can by no means ascribe real validity in the sense that their succession presents a reflection, exact or resembling, of the internal processes and reciprocal action upon which the reality and development of objects themselves depend. But on the other hand, it is just as plain that when these laws of thought are capable of leading to a knowledge of things, they cannot be mere subjective forms in the equally one-sided sense that they arise from the organization of our mind as innate modes of its activity without having any original relation to the nature of the objects with which they are destined to deal. On the contrary, thought and existence certainly seem to be so connected as that they both follow the same supreme laws; which laws are, as regards existence, laws of the being and becoming of all things and events, and as regards thought, laws of a truth which must be taken account of in every connection of ideas. All reality is connected according to these laws in such a thoroughgoing fashion, and with such unbroken logical consistency, that our thought may at its own choice use any mesh in the network as its point of departure, and proceed therefrom in any direction it will; and as long as on its part it makes those laws the rules of its progress, it will always be sure to arrive at any other point of reality which it seeks, however much the direction and the windings of its own motion between the two points differ from the real connections by which reality itself connects one of its divisions with another or causes one to proceed from another. The calculation of the peculiar properties of a plane figure by means of a diagram may serve as an illustration of this. To

help our demonstration we draw lines in the figure, and the larger the number of equally useful constructions among which we can choose, the less can we regard any of them as essential parts of the figure. We attain the correct conclusion by a concatenation of propositions which does not in the least follow any real process of construction in the object; but so inexhaustible are the possibilities of connection in any geometrical object, that our thought, setting out from any selected point, may take the most various ways of covering the object with a network of relations, and can always rest assured that at every halting-place in its circuitous course it will find some essential relation, and that at the end of the whole methodical procedure it will infallibly reach the truth for which it was seeking.

But this relation of thought to its objects is clear to us only so long as we can keep in view the complicated whole of such considerations, in the order in which we used them in our demonstration; for there arises the appearance of quite a different state of things if we go back to the separate elements of thought from the combination of which that whole has grown up, that is, to the forms of the idea, the concept, the judgment, the syllogism. It will seem to us as though a complex train of reasoning can only take an arbitrary course on the whole (arbitrary, that is, within wide limits), because it directly expresses and realizes in these its component parts those laws which thought has in common with existence; and it will seem that the circuitous course of our thought can coincide finally with the nature of the thing only because those component parts harmonize with it; hence allowing only of such modes of combination as belong to the logical consistency of this nature of the thing, however much freedom there may be in other respects. Therefore when our thought combines individual ideas into one whole, when it integrates many similar ideas to one general concept, joins concepts to make judgments, and judgments to make syllogisms, it will easily believe that in these processes it is copying the very inner relations of its object; and each of these logical

forms will, on account of the mutual relations into which it brings the component parts of the train of reasoning, be regarded by thought as a reflection of some element of the relationship which exists between the constituent parts of the object.

I reserve for the present the proof of the illusiveness of this semblance; if for the moment we assume its deceptiveness, the injurious consequences in which it involves us are clear. For whenever we consider the reciprocal relations of those parts of ideas which we have combined into one whole, or the process by which, dropping or adding characteristics, we transform one idea into another, we shall be inclined to believe that we are thereby enabled to understand not only the structure of our idea, but also the inner articulation of the object ideated, not only the procedure of our own thought, but also the course of the facts which actually occur, as the object comes into existence and develops. This confusion between clearing up our concepts and analysing the corresponding objects is an error of reflection which is very natural, and recurs in the most varied forms; and it may be allowed to occupy a certain phase in which, when men's attention has been first called to the presence in our mind of a reign of law to which all truth must conform, they are very easily led to over-estimate a discovery so important. If we say that the knowledge of things belongs to Metaphysics, and that the doctrine of the forms of thought to be used in knowledge belongs to Logic, then we may say that antiquity has very generally erred in thinking that it could answer metaphysical questions by logical analyses of ideas. And in this lies the cause of the unfruitfulness which strikes us when we look to antiquity for any furtherance of knowledge as regards facts—an unfruitfulness which we find side by side with a splendid exhibition of intellectual strength. Being quite unable in this hasty survey to give any account of the latter, we must content ourselves with indicating some of the by-ways into which later times have been misled through the influence of antiquity.

Plato's doctrine of Ideas was the first attempt to grasp the nature of the thing in general concepts—a grand attempt which, though unsuccessful, yet exercised an influence for long ages to come. There were strong inducements of two kinds to make such an attempt. In the first place, observation of living creatures has in all times given rise to the thought that nothing but the living generic concept can be the combining force which in every individual unites properties and vicissitudes into one whole of orderly development, causing in each the realization of the same form of life, notwithstanding the transforming influences of varying and casual external conditions. But again Plato's doctrine of Ideas, as opposed to the sophistry which was analysing away all sense of duty, rendered splendid service by attempting (in obedience to the second and equally strong motive) to point out that the worth of human actions is not temporarily determined by arbitrary institutions of local prevalence or changing taste, but that it depends on universal immutable moral Ideas of an absolutely good and just and beautiful, and only exists in proportion as these Ideas which are always self-identical are reflected in the various and changing forms of action. In these two cases the question is of phænomena and events which we can easily imagine to be the work or aim of reality; we find no difficulty in understanding the generic concept of living creatures as a type which the cosmic order seeks to realize in innumerable copies; still more are we inclined to do homage to the other conviction (to which enthusiastic expression has so often been given)—the conviction that universal original types of the Good and the Just and the Beautiful, are to be conceived as the exalted patterns which our actions have to imitate. So that here general concepts seemed to contain the essence of the thing, because this very essence consisted in the universality of an ideal which was intended to be realized in innumerable particular cases.

But it is not all the objects of reflection of which we can frame universal concepts that favour this way of looking at

them; so that if we disregard the fact that in the instances cited the nature of the content ennobles the form of the concept, and look at this form as indicating universally the essential nature of things, then in consistency we must go further than we would. That every particular thing which is beautiful and good and just, is beautiful, good, and just only through participation in eternal Ideas of Beauty in itself, Good in itself, and Justice in itself, was a notion which could inspire Plato with enthusiasm, but that a table is only a table and that dirt is only dirt through participation in the eternal Idea of the Table or of Dirt was a difficulty which Plato himself encountered but did not remove; these concepts of commonplace realities which from a logical point of view are just as legitimate concepts as any others, could not well be reckoned as imperishable original types in that world of Ideas of which the phænomenal world is but a dim copy. These, however, were just the cases which early directed attention to the fact that the realm of thoughts and concepts with the whole ordered system of its internal connections is not a reflex of the realm of existence, but bears to it that different relation which we referred to above. Our own voluntary actions adapt the materials of Nature to our ends in many ways, and thus among other things produce the table, of which there was no original type among the integrating constituents of universal order; but everything in the world is so connected according to law and rule, that of these products of art with which we enrich reality there may be just such concepts as of the original constituents of reality, and general logical laws are no less applicable to these concepts than to the Ideas. And further, the course of our thought arbitrarily compares together things which are quite unaffected by the comparison, or brings them into relations which are quite unessential to them, and thus produces the concept of dirt, which certainly does not express the nature of anything; and yet such a notion is a help to thought which we are justified in using; for as long as we use it with reference to those considerations to the arbitrary prominence of which it owes its existence, all the

laws that thought prescribes to concepts hold of it, and their application leads to correct conclusions.

Between *truths* which are *valid* and *things* which *exist* Greek philosophy always made very inadequately the distinction which our language marks plainly enough by these two expressions; valid truth always seemed to it to be a particular department of existence. And it is with this very distinction that we are here concerned. It is upon the fact that the same supreme truths hold of the ultimate bases of both thought and existence that the general possibility of their mutual relation depends; but the relation does not consist in this, that a fixed number of concepts *as existing* are to us *things*, and *as thought* are the *ideas of things*; on the contrary, our concepts may be increased indefinitely without any addition to the sum of existence. And further, setting out from innumerable arbitrarily chosen standpoints, we may build up the same whole by constructions of particular ideas, varying according to the variety of these standpoints; and thus there may be many definitions which define the same object with equal accuracy and exhaustiveness. None of these definitions *is* the nature of the object, though each *is valid* as to it, because there is no object of which the nature can be conceived by means of an Idea that is isolated, and unconnected with all others, and characterized *only* by eternal self-identity; but each object has its nature and its truth only in as far as there are general laws of reciprocal behaviour which are valid as to it and all others, and according to which it not only is distinguished from others as a coherent whole, excluding all others from itself, but also reveals itself and enters into connection with others. Thanks to these laws, thought can form innumerable new concepts, since under their guidance it makes arbitrary lines of communication between things, and is conscious of each movement which it thus accomplishes as the idea of a certain connection between the things. Of these new concepts, Plato's great successor Aristotle would perhaps have said that they were indeed potential in the nature of the thing, but in point of fact were

first made actual by the subjective procedure of thought. A consideration of this relation would have led in the first place to a clearer distinction between that aristocracy of Ideas on the one hand which (as the generic concepts of living creatures and of determinations of moral value) are among the eternal types that are original constituents of the cosmic order, and on the other hand that proletariat of concepts that increases indefinitely the more curiously thought plays with the infinite possibilities of comparison and connection among things. But this distinction (as to the first part of which we reserve some important doubts) would have been crowded out by a second, which admonishes us to consider not only the form of the concept, but also the form of thought of the judgment, and to search for the truths—expressible only in this form—without which no intercourse between existing things and no cosmic order is conceivable, one of the things which we owe to this form of judgment being the possibility of valid concepts.

§ 5. This world of concepts not only could not be brought into adequate connection with reality, but further, it did not attain the internal articulation necessary for a typal world of Ideas. It remained a collection of motionless Ideas between which nothing takes place in the present, and nothing is foreshadowed as about to take place in the future, and which only cohere among themselves by means of logical connections of subordination, and compatibility or incompatibility. All the transitions from one to another which thought finds or establishes between the objects of perception are but misused by having their meaning likewise petrified into eternal and everlasting Ideas, which take their places calmly beside the rest without thinking that their business was not to be links, members of the series, but only copulas between other members. Thus the eternal self-identical Idea of identity stands beside the equally eternal and self-identical Idea of unlikeness, and along with them the eternally motionless Idea of movement; none of them makes an effort to exist after a fashion suited to its content, as a relation of predication between two other

points, or as the movement of something in some direction. Aristotle was sensible of these deficiencies; a taste for the observation of Nature, and systematic occupation with the forms of thought, drew his attention to the numerous relations which connect the individual elements of reality into one living whole, and to the ways in which these relations are expressed by our thought. He knew that Ideas are not existent but valid, that a truth is expressed not by a concept but by a proposition; he searched language for all those expressions by which we indicate the manifold relations between things which we find or assume; he frequently distinguishes between the dependence upon one another of the different parts of a complex thought and the order in which the elements of the corresponding reality condition one another. But his practical philosophizing no more avoided confusion between the logical analysis of thought and the investigation of things with reference to the form of judgment, than Plato did with reference to the concept.

In the judgment we combine two ideas by means of a third; we attribute to an object a property or a condition or the manifestation of an activity. As long as these predicates have once for all been received as unchanging and belonging to the subject in its integrity, the judgment expresses no event, but only analyses our idea of an unvarying content; and as long as this is the case, it may escape our notice that there is need to ask specially what exactly there is in the object itself correspondent to that which (with obviously figurative expressions) we call its possession of some property, its sufferance of some condition, or its manifestation of some activity. If on the contrary we attribute to a subject assumption or loss or alteration of predicates—that is, when we describe an event—we have a more unmistakeable interest in knowing what it is that actually happens to this subject —the very object itself—to justify our imitative thought in now conceiving of it under a second idea which has arisen from a previous idea of the same object by the addition of new or the dropping out of old marks. It would be difficult

to show that the Aristotelian philosophy generally satisfies this requirement. Much occupied with the concepts of change and of becoming, it yet in analysing them makes no inquiry as to what it is that justifies us in their application. We are told indeed that in change, properties always pass into their opposites; for a brief moment we indulge the hope that this remark indicates at least the path and direction which are taken when there is alteration, thus revealing a truth which, since it could not have been the product of mere thought, must have been directly gathered from the nature of the thing; but it speedily appears that nothing more was meant than that naturally nothing can become what it already is, but only something that it previously was not. Thus this somewhat inadequate information merely expresses the result of an analysis of our idea of becoming, announcing that in it two different individual ideas succeed one another in such a way that when the one comes the other goes. But what is it that in existence and reality so corresponds to this course of our ideas that we are able to believe that the ideas are a copy of the reality? We do not know; the transformations which our idea of an object undergoes when the object changes, are, in the last resort, regarded as if the alterations of the object itself on which they depend were quite similar to them, and as if a knowledge of them could take the place of a knowledge of the objective alterations. When a white object becomes black then in our representation, in the mosaic of marks which constituted its mental counterpart, we, as it were, erase the mark of white colour, and replace it by one of black; if we then ask what has happened to the object itself, in virtue of which we have been able by this alteration to make our idea correspond to it again, it seems that the process was essentially just the same; the white departed from it, and the black came instead. That *properties* inhere in and are connected with the *thing* quite otherwise than the *marks* (or parts of presented ideas) are related to the *concept*, is a fact of which now and then a theoretic suspicion has been expressed, but this has had no important effect upon practical philosophic investigation.

The celebrated concepts of *δύναμις* and *ἐνέργεια*, which as Potentiality and Actuality are still favourites of philosophical dilettanteism, bring these barren considerations systematically to the investigation of all objects. If a thing passes from one state into another, the conditioning causes of the later state are contained never wholly but always partially in the earlier state; if they had been contained wholly in it, then the earlier state could never have been, but the later would have existed from all eternity without any need of coming into existence; since they were only contained in it partially, there was something in the earlier state which contributed to the later without actually bringing it into existence. If we compare the two, the ingenuity of thought cannot fail to set down the possibility that the second state may at some future time arise, as an actual mark of the first state. The nature of such an abstract concept as that of possibility, which makes it very difficult to handle, here conceals the barrenness of this procedure which in other and similar instances is very obvious. In any case of a *b* that was greater than *c* and less than *a*, these properties of relation were regarded by the ancients as characteristics originally existing in *b*, and they greatly wondered how it was that *b* could be at the same time a greater and a smaller. In the view of modern thought, these same properties of relation belong to *b* only when it is compared with *a* and *c*, being then new expressions for its really unchanging magnitude. It is after an equally shallow fashion that the possibility or *δύναμις* of the later state is contained in the first. The real task which cognition has to accomplish in comparing the two is to indicate definitely what the earlier state was; and to prove that being what it was it formed a part of that circle of conditions, which (subsequently completed by the accession of other conditions) helped to form the whole cause of the second state, and hence could subsequently produce the realization of that state, which earlier in the absence of the complementary conditions it could not do. On the other hand, it is wholly useless, and merely produces delusion as to the real problems of knowledge, to assume

generally for every reality merely a previous corresponding possibility without inquiring what are the actually existing facts upon which the possibility of the subsequent change depends.

It may be objected that δύναμις and ἐνέργεια or ἐντελέχεια are not merely the bare concepts of possibility and actuality but intuitions of something more profound. It is true that as Plato's Ideas sometimes denoted all concepts merely as such, and sometimes denoted a selection of what should be typical concepts, even so that more general signification of the technical terms above referred to which follows from Aristotle's own illustrations, is limited to certain actually favoured cases. For instance, there is nothing to hinder our regarding the state of rest of a system of elements as its ἐντελέχεια, and the motions leading to this as its δύναμις in which the rest is already present but not realized. But this is not Aristotle's meaning. In his view, the mind that can penetrate to essential assumptions concerning the worth of things, regards activity as the sole and only reality which ought to exist, inactivity merely as movement which is as yet undeveloped Thus with the concept of δύναμις as a possibility which in itself may be a capacity, not only of action, but also of inaction, there is blended the concept of force, which is no longer a mere possibility, but an impulse to realization, a living faculty. But this transformation of the concept makes it more seductive indeed, yet not more fruitful; it only beguiles us the more into being satisfied with explanations which are no explanations. The soul is in this sense the ἐντελέχεια of the organic body. If we interpret this to mean that everything which is found in the body as an actual relation of the elements out of which it is constructed, is used, assimilated, or enjoyed by the soul according to its worth, significance, and possible results, partly in conscious perception, partly in feelings of pleasure and the reverse, partly in free activity— then we have a proposition which sets forth the problem of psychology, but does not furnish that explanation of it which we desire. For that the facts are thus we all know without

the help of philosophy; the work of investigation begins just where this formula ends; what we want to know is, by what concatenation of definite and assignable actions and reactions that fact of the translation of organic outwardness into spiritual inwardness comes to pass. In a similar fashion the logical analysis and comparison of our concepts are but too often proffered as real explanations of their content.

The ancients did not to any extent worth mentioning develop theories which, by the subordination of varying circumstances, present a circle of numerous phænomena as the results of general laws or as deviations from a type. Hence the confusion between logic and metaphysics, which we have already noticed in treating of concept and judgment, meets us again later in full force when we come to syllogism and the systematic connection of objects. For undoubtedly errors are committed in presenting the formulæ resulting from the investigation and disentanglement of a series of events as if they were the very nerves of inner connection between the events themselves—in frequently accepting that orderly classification which facilitates the survey of given reality, as though it contained the essential meaning of the things themselves—in often regarding the insertion of some definition in its proper place in any system as being in itself an addition to real knowledge, even when it adds nothing whatever to the previously known qualities of the object defined. Moreover, the meshwork of the draught-net of method is often taken, without more ado, to be the very articulation of the objects which it encloses; and not a few philosophical works take the grouping of problems for their solution.

This kind of over-estimation of logical forms is perhaps not the least injurious, but it is the most excusable. He who takes the connections between ideas in concept and judgment for real relations between the things presented in idea, regards as a process in things that which by its very nature can never take place in them after such a fashion, and is wholly mistaken. But he who regards the connection of an order which is systematic or regulated by law, and which he can transfer

to given facts as the really conditioning principle of the objective connection of things, only over-estimates the significance of a proposition which is valid both as to form and content. For as to form, no one doubts that the form of law and systematic order is just as binding and valid for the inner coherence of reality as for the connection of our ideas; the only question, therefore, is whether the content of the laws and order assumed by us have such claims to objective value.

Now, supposing that *a* is the principle—inaccessible to us—by which the phænomena *m*, *n*, *o* are really conditioned, but that *b* is a circumstance accessible to our observation, which as necessary consequence or in some other way is inseparably connected with *a*, we may succeed in representing *m*, *n*, *o* as dependent upon *b*, and in doing so continue to be in harmony with existing facts. The law expressing this dependence would be perfectly valid, although in a higher sense it would not be true, for it would derive the phænomena, not from their really supreme principle, but as it were from a vassal thereof. It is, however, such validity as the above, and not such truth, that we ascribe in a general way to the laws and orderly classifications of science; in practice they merely lead from some point of departure in facts to some conclusion in which there is a return to facts. It is of little consequence whether any one thinks that the course of reality itself between those points of departure and conclusion is also determined by the law, or that the real inner connection of the manifold is expressed in systems. Since one soon sees that many laws may be expressed differently from different points of view, and that the same group of phænomena may be arranged with equal significance in various classifications, this pretension is easily given up. None of these forms and laws are held to be expressive of the true order of things to the exclusion of all the other forms and laws, but reality is understood as a whole that from very different points of view may be represented in connections ever different but ever orderly. The traveller who goes round about a mountain, if he goes repeatedly backwards and forwards and up and down, sees a

number of different profiles of the mountain recur in an order which might have been foretold. None of them is the true form of the mountain, but all are real projections of it. But the true figure itself, as well as all these apparent ones, would consist in some relation of all its parts to one another. This true figure, the actual inner relation of things, may perhaps also be discovered, and then, of course, this true objective law of reality would be preferred to all derivative and merely partial though valid expressions of it; meanwhile we comfort ourselves with the thought that the nature of truth is such as to make possible innumerable apparent manifestations of itself, and a valid movement of knowledge from one to the other.

§ 6. It was mythology that first in the exercise of unrestrained fancy added a world of real existence to the world of phænomena which had become enigmatical; with greater moderation the reflection of subsequent wider civilisation opined that there was a nature of things to the heart of which we cannot penetrate by poetic insight, but only touch here and there at the surface by means of a thoughtful comparison of facts; finally dawning science tried to substitute for the uncertain groping of these attempts, methodical investigation, which was guided by a clear consciousness of the conditions under which our thought can contain truth. From this position, which had been won once for all, and could never be given up again, human knowledge was hindered from making further advances by deficient insight into its own relation to that nature of things for which it sought, and it attributed to the movements of thought a significance with regard to facts which they did not possess. It was only at a comparatively late date that this error was clearly perceived and avoided—at least in some departments of human knowledge; the old mistakes have never been universally remedied, and there have never been wanting acute minds which, deceived by the venerable rust of antiquity which has accumulated upon them, have beheld in those very errors the golden grains of a truth to be religiously transmitted and further developed.

Even the ancients made the question whether we are capable of a knowledge of the truth the subject of wide-reaching and oft-repeated reflection. But they ended in scepticism and not in advance towards a positive conclusion; and even in the arguments with which they contest or doubt that capacity of knowing the truth, they frequently betray afresh the habit of regarding the logical connections between our concepts of things as real states of the things themselves, thus creating anew difficulties which would be avoided if the assumptions made were better grounded. A renewed and very powerful impulse towards the prosecution of these investigations arose in the world of Christian thought, when Christianity had to effect a reconciliation between the content of its own practical faith and secular scientific thought — doing this partly in the struggle with heathen civilisation, and partly as a natural result of men's inextinguishable impulse towards knowledge.

The contrast of the world of appearance to that of real existence had among the ancients arisen chiefly from theoretic considerations; and it was in fact only the really existent about which human knowledge (which looked for nothing in real existence but its own concepts) ascribed to itself clear and exact cognition. The world of phænomena was consigned to fluctuating and uncertain opinion. Christianity developed this contrast almost entirely from moral points of view; not as unknown, not as empty form, not as an object of search, but known through revelation and experienced by faith, the world of real existence appeared in consciousness, opposed in its holiness and majesty to the created universe. Yet known and revealed only in this its glory, not in the secrets of its construction; being capable of having its value experienced in feeling, but hard to be grasped by the thought which strives to ascertain the conditions upon which this value depends. And yet the call to do this was more pressing than ever; the true world was no longer a mere holiday thought for leisure time, which people might entertain or not as they liked; and the more tasks it set for men in this life, the more indispensable was it to investigate its connection with the

everyday world of appearance, which could not henceforth be neglected as simply an object of varying opinion, but had to be examined into as the soul's sphere of work on earth. This new seriousness distinguishes the investigations of the Christian era, notwithstanding the increasing clumsiness of thought, they seem, as compared with the many-sided dexterity of antiquity, like some weighty business of life beside some sport of chivalry by which men's leisure was adorned. Almost wholly occupied with the most difficult problem of thought—the question concerning the connection between the world of worth and the world of fact—this long-continued and mighty effort of the human mind was yet unable to attain its object; and it was prevented by this predominant direction of its endeavours from providing the convictions which it developed concerning the relation of thought to existence with any positive results.

Conscience and revelation held up to consciousness ideals of action and of existence, the truth and eternal validity of which seemed the one and only fixed point in all the fluctuations of human reason, but the attempt to bring the content of these unchangeable requirements into harmony with the forms of thought according to which we are forced to apprehend reality and its coherence, revealed the impossibility of getting near to that immutable goal by the help of such resources. A number of dogmas arose in which the deep conviction of the worth and truth of an intuition which is rather sought after than experienced, struggles with the incapacity of thought to express without contradiction that which men had in their minds and were seeking after. But the burden of this confusion was laid not upon existence, but upon cognition; assertions of the absolute unknowableness of God, and exaggerated utterances which seek for the marks of truth in that which is repugnant to common sense, concur in bearing witness to men's conviction that the worth and the essential truth of the higher world are indeed revealed in faith, but that the laws of connection obtaining both within it and between it and material existence remain unattainable

by science. In the more restricted question concerning the validity of general concepts which was debated between the different Nominalist and Realist sects, these investigations are brought into closer connection with the questions which we have been hitherto considering. Do the general concepts of kinds and genera exist previously to the individual things, as eternal types according to which the things were formed by God, or did they arise in our minds after the things themselves were in existence? and are they empty names which signify nothing, or do they, without containing the essence of things as their types, yet exist in things after such a fashion that they can spring up in us as valid modes of apprehending things? This last opinion met with acceptance as well as the others; but the germ of truth which it contained remained undeveloped. On the one hand, traditional custom directed attention almost exclusively to the concept, the most unproductive of the forms of thought; diverting it from the consideration of the judgment and the syllogism, which by their mode of connecting their content would have made more clear the distinction between the validity of a truth and its identity with the object; and on the other hand, the investigation of the world of outer experience had not advanced far enough to assist the more abstract course of thought with the illustrative force of analogy. It was not until the end of the Middle Ages that there arose this new kind of science, which, worthy as it was and destined to give a new form to all investigation, remained for a long time restricted to the domain of Nature. Respect for experience, the idea of universal law, and the renunciation involved in accepting the exact investigation of the connections between phænomena by way of compensation for that knowledge of the nature of things which men despaired of attaining, are the characteristics that distinguish the spirit of the new movement.

Experience, indeed, could never have been a matter of indifference to men who have to live their lives and find their way in the world of facts, and the little-regarded wisdom of

common life had even in ancient times gained much from experience; but the more exalted wisdom that was transmitted in the schools, in its attempts to build up a copy of the world was not careful to test by observation and experiment the validity possessed by its assumptions in reference to existing reality; it was enough if these could justify themselves to thought, and the conclusion from the conceivableness of a proposition to its validity in the system of the universe was generally drawn without any hesitation. Thus men did indeed recognise that things had a nature of their own, and that it was this which ought to constitute the object of knowledge; but the content of this nature was determined in a one-sided fashion by reference merely to subjective thought and men's sense of probability. There was unquestionably a deeper reverence for truth in the newly attained consciousness that, for the demonstration of any thought its conceivability needs to be supplemented by proof of its efficacy and validity in the world of fact. Men began to feel the charm of reality. The ancients had been puffed up with the strange notion that they had rendered some service by developing a world of pure thought that needed no connection with experience; for this idea there came to be substituted the conviction that knowledge had only been reached to the extent to which those connections of things apprehended in thought could be confirmed by fruitful agreement with the results of observation.

In this the new investigation of Nature was entirely of one mind with religious reflection; it took its stand upon external sensible experience, just as religious reflection did upon the inner experience of the life of faith; that which the eye saw or the heart felt could not be taken away or diminished by any subtlety of thought; on the contrary, the results of all scientific labour must be in agreement with these already established and immoveable positions. But the investigation of Nature had an advantage over the examination of the inner life; there were presented to the senses an immeasurable variety of sharply defined phænomena susceptible of exact measurement; equally perceptible by all, when some easily

recognised sources of error had been cut off; recurring in regular series corresponding to their inner coherence, and capable of being freed by arbitrarily chosen experiments from the ambiguities to which direct observation is subject in consequence of the crossing of different series of events. The experiences of the inner life, neither recurring regularly nor separable from the incalculable peculiarity of the individual mind, offered much greater difficulties to investigation; and the believing heart had to be contented to hold them in opposition to the requirements of thought, or without their being in adequate connection with these requirements, whilst the investigation of Nature succeeded in developing positive methods for the reduction of its problems.

The connection of natural phænomena into one coherent whole was a favourite task among the ancients also; but they blended two questions with injurious effect. They sought first of all to grasp some primal activity or primal event which should be not a mere indifferent fact, but should also produce an æsthetic impression of its value; from this beginning the particulars of reality were to proceed in a succession, to the order of which was attributed the double office of showing on the one hand how the significance of every phænomenon depends upon preceding ones, and how on the other hand in its realization it is an effect of these. This mixing up of an ideal interpretation of events with a causal explanation could not afford to antiquity the fruits which in our own time it has always refused. It was only Atomism that even among the ancients took another course; favoured by fortune which is not always gracious to the most deserving, minds of a lower order in this school—minds infinitely inferior to the incomparable genius of Plato and Aristotle — yet hit upon the fertile thought which was to be a lasting gain for all future time. I am not speaking of their direct teachings concerning the nature of things, of the atoms and the void, and of the subsequent rude and unskilful working out of these ideas and of their consequences; on the contrary, the only important thing is the

fundamental notions of their procedure as regards method. They first of all laid down as their established belief, the maxim that the origin, preservation, mutation, and destruction of natural objects could not be primarily explained by means of Ideas as though mere significance were sufficient to transform a postulate into reality, but that on the contrary everything that happens, whatever its significance and value may be, whether it is great or small, noble or common, right or wrong, depends for its realization on the universal rules of a mechanism working uniformly everywhere. And further, they accustomed men to see in the inexhaustible multiplicity of mathematical distinctions which may be applied to the properties, states, and movements of elements, a middle term (or a collection of infinitely variable middle terms) by which minor premisses may be supplied to major premisses expressing universal laws; these minors affording to the majors not only definite guidance towards the establishment of various results, but also enabling the whole special and definite result to be deduced in each particular case.

Later times learnt the value of these fundamental notions in the development of the idea of universal natural law. For although the general concept of law could never have been unknown to a civilised people, yet its application in the investigation of the existing world required that it should have assumed a particular character which did not belong to it till a late period. If there exist between two real elements connections which vary in such a way that their various values may be measured by a common standard; if further those elements can experience or assume states or properties which in the same way form varying series of members susceptible of comparison, these members having any measurable differences; and if moreover a change in the states or properties of the thing is involved in any change in the connections—then there will either be a constant formula according to which the magnitude of the change of states depends upon the magnitude of the change of connections, or there will be another constant formula according to which

the ratio of this dependence itself varies regularly with the change of any condition that admits of degrees. This general expression, to which every natural law is reducible, clearly reveals the limitations which science imposes upon itself, its tasks, and its performances.

And first comes its dependence upon experience. For science cannot guess what elements and what connections between them must be contained in the order of the world; it waits to learn this from observation, and for itself desires to be nothing more than a development of the results which become necessary when circumstances actually occur, the non-occurrence of which would involve no contradiction in thought. And it is not sufficient that experience should show to science determinate elements in determinate connections; for even what will happen under such conditions science has no means of guessing; it is, again, experience which must teach science what kind of change in the states of things is produced by the presence of this determinate connection, and it is the comparison of many observations which first leads to a knowledge of the general law according to which the worth of these results depends upon the worth of their conditions.

But the possession of a general law would be worthless if it only served to sum up the particular cases from which it had itself been abstracted. What is much more important is to comprehend the whole varied content of every complex phænomenon as in the course of events it now arises and now passes away again, owing to the crossing of many and various conditions. Science cannot seek the solution of this problem by reference to that which the inner nature of things requires, or that which is included in the necessities of its development, or in the reasoned plan of the universe. Science does not know what it is that is valid in all these connections. But it knows that the unknown inner being of things (as far as it is revealed in their properties and connections, which are quantitatively comparable) must inevitably have the consequences which accrue, to everything that has magnitude, from the

summation of similars, the cancelling of opposite symbols, and the combination of differences so as to produce a mean result. It is only at this one accessible point that science can lay hold of reality, and hence it imposes upon itself the other limitation of being only a mathematical not a speculative development of given data. To an individual connection there attaches as a matter of fact a definite result, arising we know not how, and the magnitude of which is dependent upon the magnitude of the connection; if there is a complication of many such connections, science deduces a new connection as the effect of this complication, and from this proceeds a new result capable of predetermination as regards form and magnitude, and likewise arising we know not how. Thus the whole theory is an investigation of how far the order of the changing course of the world, which springs from the varying action and reaction of its parts, may be apprehended by means of empirically recognised constant connections of unknown elements, without searching into the inner nature of things, and the end to which this nature is destined. As far as variation of phænomena goes, every occurrence is for science a result the producing conditions of which it searches out; as soon as facts and connections which are unchangeable and always valid, are either encountered by science in observation, or found to be assumptions on which existing facts may be adequately explained, these facts and connections are regarded by science as ultimate principles at which its investigations may stop. It does not seek further to deduce this final reality itself, for the domain of that causal connection by which alone it is led, ends where change ends; the coherence which beyond this domain may subsist between the unchangeable elements of reality, could only be such as should have its order and mode of connection justified by the worth of the significance which they possess. Science has not the least reason to deny such a coherence, but its investigations do not refer to this, but to the operative economy by which phænomena must be connected in every case, whether an intelligent Idea prescribes the work of the world, or whether

all that takes place is merely the result of causes that lie behind, and does not work towards any goal.

Whilst these thoughts had been gradually developed much had changed. The world of phænomena, once the object of obscure and varying opinion, had become the field of the most exact investigation. Plato and Aristotle—in opposition to the Heraklitean doctrine of the eternal flux of things, which as it seemed to them unjustifiably did away with the validity of all immutable truth—agreed that there can only be a science of that which is eternally self-identical; more modern times emphasized the opposite doctrine, saying that reality is of interest to science only in as far as it changes; of that which is eternally self-identical we can merely have cognisance; eternal truths are of worth not under the form of a motionless order, in which the particular occupies a fixed position of subordination to the universal, but only as principles of change in accordance with which things alter their states. In this contrast, the meaning of which cannot be here guarded against all misunderstandings, is to be found the real advance of science in its new stage; in the admission that only phænomena can be developed from phænomena, and that we remain wholly ignorant of the nature of things, we find the limitation under which this advance is to be recognised. To describe the results which have been obtained in this way would be as unnecessary as it is impossible; it is not only knowledge of Nature, but also mental and social life, which have experienced the influence of the new mode of thought; and even where its more concrete instruments of search have not yet penetrated, it has already introduced its methods and spirit of investigation. The manifold procedure of induction, the subtle devices of experiment, the fertile ingenuity of calculations in probability, constitute the stock of an inventive and active art of knowledge which the energetic and Promethean spirit of modern times has added to the not less admirable structure of ancient logic. By these means science advances, whilst unfortunately the traditional philosophy of the schools knows little of them, and satisfies itself with continually renewed

reflection upon the wisdom of past times, pushing aside the problems which this cannot advance. And finally, these investigations which primarily concern phænomena only, have not been unfruitful even with regard to those reflections which we desire should be carried on concerning the world as a whole and the significance of its order, and concerning real existence. On the other hand, it is to empirical investigation and its mathematical interpretation that we owe our only trustworthy view of the magnitude and construction of the universe, the connection of the effects that take place in it, and the complete circle of mutually compensatory processes which actually occur—facts that have not indeed received an interpretation, yet for all that facts—facts the knowledge of which has provided philosophy with a basis for its explanations of cosmic order quite other than that which in ancient times could be furnished by its own assumptions concerning the necessary nature of things, and real existence. To know facts is not everything, but it is a good deal; to despise this knowledge because one desires something more befits only those fools mentioned by Hesiod who can never understand that the half may be more than the whole.

§ 7. Philosophy is a mother wounded by the ingratitude of her children. Once she was all in all; Mathematics and Astronomy, Physics and Physiology, not less than Ethics and Politics, received their existence from her. But soon the daughters set up fine establishments of their own, each doing this earlier in proportion as it had made swifter progress under the maternal influence; conscious of what they had now accomplished by their own labour, they withdrew from the supervision of philosophy, which was not able to go into the minutiæ of their new life, and became wearisome by the monotonous repetition of insufficient counsels. And so when every offshoot of investigation which was capable of life and growth had separated itself from the common stem and taken independent root, it fell to philosophy to retain as her questionable share the undisputed possession of as much of all problems as remained still inexplicable. Reduced to this

dowager's portion, she continued to live on, ever pondering afresh over the old hard riddles, and ever resorted to afresh in calm moments by those who held fast to a hope of the unity of human science.

The experiential sciences had investigated the connection of phænomena; they showed how many and what kind of links constitute the chain of events which connects any cause with its final effect; but what it is that holds together any two contiguous links escaped them; they told neither what things are in themselves, nor in what consists that action between them by which alone the condition of one can become the cause of a change in the condition of another. Religious and moral life had developed the belief in unconditional worth—an unconditional ought, which if there is any meaning in reality must be the most real of all things; but the world of creatures and of facts in which alone it could be realized was opposed to it as quite alien, neither derivable from it nor, as it seemed, even compatible with it. This condition of things contained incentives to a constant repetition of two questions —first the question as to the intrinsic nature of existing things whose manifestations to us are the subject of our observation, and secondly the question as to the connection in which this world of existing reality stands to the world of worth, of what ought to be. And all attempts to answer these two questions always stirred up forthwith a third question, that as to our capacity of knowing truth, and the connection of this capacity partly with existing reality and partly with that which reality ought to be and produce.

Our thoughts receive the stamp of certainty by being reduced to either the already proved certainty of others, or to that of immediate truths which neither need nor are susceptible of proof. The trust which we repose on the one hand in the laws of thought by means of which this reduction is accomplished, and on the other hand in the simple and immediate cognitions to which this leads us, may be guarded by repeated and careful proof from the influence of prejudices of which the persuasive force is accidental and evanescent; but on the other

hand no proof can guard against a doubt which suspects of possible error that which men have always found to be a necessity of thought. A scepticism that does not demonstrate from individual contradictions which may be cited the erroneousness of specified prejudices, and hence the possibility of correcting them, but goes on causelessly repeating the simple question whether in the end everything is not really quite different from that which we necessarily think it to be, would, in banishing certainty wholly from the world, also destroy all the worth of reality. That, however, this cannot be—that the world cannot be a mere meaningless absurdity—is a moral conviction, which is the ultimate ground of our belief in our capacity of cognising the truth, and in the general possibility of scientific knowledge. But this conviction does not define the extent of such knowledge.

It is only our own existence of which we are immediately conscious; all our information as to an external world depends upon ideas which are only changing conditions of ourselves. What, then, is our guarantee that this image of an external world is not an innate dream? He who is cautious asks whether this is so; he who is incautious asserts that it is; he forgets that our experience must be the same in both cases, whether there be things without us or not; even a real external world could only be reflected by us in images resulting from affections of our own being. Hence the nature of all our ideation being subjective, it can furnish no decision concerning the existence or non-existence of the world which it believes that it reflects. But the attempt to regard the image of the world as a native production of the mind alone has always been speedily given up again by scientific instinct; for in order to attain this end it has always been necessary to assume the existence in ourselves of just as many impulses foreign to our mind, and not derivable from it as in the common view we are believed to receive from the external world. Reserving for future consideration the important points in this view, we now go on to speak of the conviction (to which

philosophy has always speedily returned) that our ideas arise from action and reaction with a world independent of ourselves

But if this is so, can our ideation be more than an effect of things, can it be a copy which resembles them, and can the truth which we are capable of knowing consist in an agreement between thought and thing? We speak of the image of an object when any construction of other material makes the same impression upon our perception which the object itself would have made; thus as far as we are concerned one thing becomes the image of another through having a similar effect. But can the effects produced in us by both be ever so exactly like the things, that the eye of an independent observer would regard our cognition as an image of the object? Wherever action and reaction take place (and cognition is only the particular case of such action between things and the ideating mind), the nature of the one element is never transferred, identical and unchanged, to the other; but that first element is but as an occasion which causes the second to realize one single definite state out of the many possible for it—that state, namely, which according to the general laws of the nature of that second element is the fitting response to the kind and magnitude of stimulus which it has received. Hence definite images in us, and *produced by us*, correspond to the causes which act upon us; and to the change of those causes there corresponds a change of these inner states of ours. But no single idea is a copy of the cause which produces it, and even the connections which we think we cognise between these still unknown elements are not primarily the very relations that really obtain between the elements, but only the form in which we apprehend them—and we do not regard this state of things as human weakness, for it is of the very nature of all cognition, which depends upon action and reaction with its object. All creatures that are subject to these conditions are subject also to this consequence; they all see things not as they are in themselves when nobody sees them, but only as they appear when they are seen.

Though limited in this way to phænomena, yet knowledge

is not devoid of all connection with what really exists. For we are not justified in complaining, as if it were so illusive that a mere appearance only is shown to us, the nature which appears (which is altogether unsusceptible of comparison with the appearance and of which even the very existence is doubtful) lying wholly beyond our intellectual horizon. We cannot regard our fundamental intuitions as merely human modes of apprehension by which things which are in themselves of wholly different form are taken up, and under which they appear to us alone, without admitting that (in order that they may be able to be taken up by these forms) things must have such a relation to them as any object must have to the meshes of the net in which it is to be caught. Or to speak plainly, every appearance presupposes as the necessary condition of its appearing a real being in the inner relations of which lie the grounds that determine the form of its appearance. From the analysis of the forms of intuition under which our perception immediately apprehends its objects, we may easily attain the conviction that these forms do not, in the shape in which they are familiar to us, admit of application to things themselves; but we shall always need to seek, in the nature of things and in their true mutual connections, the conditions which admit of our apprehending them under those forms. Thus it may be doubtful whether space and time do not exist as space and time solely in that ideating activity which can grasp a manifold in one act of apprehension; but we cannot doubt that, if this is so, that which exists must itself be subject to an order neither spatial nor temporal, which acting upon us is by us translated into the form of spatial and temporal order. It is certain that the sensation which any object or event causes in us is not exactly like its cause; but it is equally certain that we shall regard two objects or events as exactly like, similar, or different, if the impressions they make upon us are exactly alike, similar, or different, and we shall estimate their degree of relationship by the amount of difference between their impressions Thus we inevitably regard the apparent existence and events

which we perceive as being proportional throughout to real existence and real events which, belonging to or occurring between things themselves, by no means exclude concepts of truth and order. The attempt to renounce this supposition would produce not any increase of precision but fruitless and self-contradictory agony of thought.

But if appearance indicates existence, it yet indicates only formal relations of existence and their changes; the nature of the things which exist and act under these relations remains inscrutable. And just because the nature of things remains unknown, we are also unable to comprehend the occurrence of action and reaction between them as a result of their nature; it is only appearance, which is the matter of experience, that can lead us to divine this true action and reaction. Thus philosophy takes the same course that we have already seen taken by the natural sciences; it begins with the individual enigmatical and contradictory phænomena which experience offers, and guided by the general laws of thought seeks to ascertain the form of real existence and occurrence which, in order to explain what is strange and contradictory in facts, must be supposed to underlie these as their efficient cause. It must be admitted that some admirable results may be attained by this Realism, which contents itself with tracing back actual facts of appearance to facts of existence which must necessarily be assumed, even when its action is wholly subject to this limitation, not only may it succeed in throwing light upon the efficient connections in particular coherent groups of phænomena, but a consideration of the knowledge attained may also lead it to a view of that which as true reality lies at the foundation of the whole phænomenal world. But even this final result will retain the character of mere fact, and thus Realism will always arouse the opposition of that idealistic bias of the human soul, which recognises real existence not in facts which only are because they are, or because they must be assumed in consequence of the existence of something else, but only in such a fact as certifies by the worth of the thought which it

represents, its vocation, its right, and its capacity to appear as the apex and crown of reality, as the final datum and the highest constructive principle.

§ 8. Idealism opposes to the realistic acknowledgment of the unknowable nature of things the bold assertion that Thought and Existence are identical. In saying this, it does not necessarily mean (what, however, it is occasionally audacious enough to assert) that human cognition will some time succeed in penetrating by thought the existence of all things, and recreating it in idea; for the narrow limits of our finite nature which hinder this extension of real insight are but too obvious. It means that for a cognition free from these limitations things would no longer be insoluble realities, they would no longer be as unapproachable and incomprehensible for thought, as for instance light is for the ear or sound for the eye; rather thought would recognise them as realized ideas, thus recognising itself in them. So this proposition, understood as not properly an assertion concerning the relation of knowledge to its object, but much rather as a conviction concerning the nature of existence in itself, palpably gives to the existence or nature of things a different meaning from that given to it by common opinion. For a man of ordinary intelligence thinks he immediately knows that matter or content by which a thing as such or such is distinguished as different from some second thing—knows it partly in the impression upon the senses, and partly in ideas which are directly connected with the impression and hold together its constituent parts. And it seems to him all the more difficult to see how it can happen that this content should have the power of meeting him as something existing, independent, tangible, as a Thing in short; he who should discover the secret spring by which the thinkable τὸ τί of existing objects is endowed with the extension, body, resistance and elasticity of Thinghood, would seem to unsophisticated thought to have found the real and very nature of things, not that which distinguishes one thing from another, but that in which they are all alike, the essence of their existence, reality itself. Now can Idealism

maintain that it can solve this problem? Certainly not to any greater extent than Realism, in its own view, is capable of; in what exactly consists the existence of things, what is meant by their being connected with one another, finally how it comes about that anything results from these connections—all this is as impenetrable to Idealism as to its opponent. Perhaps—to admit the utmost that we may—it may also succeed in proving that there exists—though it does not know how—a connection in accordance with which if there exist (in some incomprehensible way) a being of such and such a description, there must in an equally incomprehensible way exist such and such change and activity, and no other; but even if we admit this, Idealism would only have penetrated the *meaning* and the intelligible connection of the individual determinations which under the name of being we grasped together into one whole; how this inner connection of reality could *be* would still remain wholly uncomprehended.—Yet to do all this was just what was promised by the bold and striking expression given to the proposition which made being identical with thinking; it led one to expect that just that by which being as being seemed at first to be irreconcilably differentiated from thinking or from being thought, would finally be presented as a vanishing distinction, and that this being would be altogether resolved into thoughts. And now it seems that of the two ideas which we regard as blending to produce existence, the ideas of the τὸ τί and of its existence, Idealism leaves that of existence just as unexplained as it was before.

But just as no end was gained by the reference to being in the proposition to which we have alluded, even so is it beside the point to speak of thought as that with which it should be identical; as long, at least, as this name distinctly signifies activity of the mental life as distinguished from other activities. And yet this seems to be what is meant, for even the Idealist does not allow that sensuous intuition and perception can grasp the truth of things; he abandons both these, and reserves to thought, as a special and higher activity,

the privilege of searching out real existence, behind the illusions with which sensuous intuition and perception surround us. But his expectation rests upon a widespread error. Men are universally much disposed to regard as a product of thought anything for which language has furnished a name, although what thought has contributed to the building up of the content which it indicates may be very little, and sometimes nothing whatever. As long as we are considering sensuous impressions, we are indeed soon convinced that no skill of logical operations can supply the place of sound or colour to him who is blind or deaf; that thus for instance blue or sweet are not concepts which we think, but impressions which we experience, and their names merely linguistic signs which remind us of a content for which all that thought does is, at the outside, to indicate its dependent nature by the adjectival form which it gives to it. But in the more general concepts which are everywhere interwoven with our perceptions and give them form and stability—in the ideas of Being, of Becoming, of Action, and of every Connection which subsists between any two things—we feel more assured of finding the genuine products of thought, and of thought alone. And yet the meaning of being cannot by any interpretative activity of thought be made intelligible to him who does not know immediately what it means; all that thought can do is by proceeding analytically and removing all accessory ideas which are not signified to teach us to distinguish that meaning of the word which can only be grasped by immediate intuition. No one will ever invent a definition of Becoming which does not contain (under some other name) as its most essential constituent the idea of passing from one to another, or of something happening; thought can contribute to the building up of this concept only by illustration of the two points between which the nameable but unanalysable enigma of transition takes place. And the concept of Action is equally incapable of being approached by any logical operations. It is easy to fancy that one has traced it back to the more abstract concept of that which conditions—although here it would be questionable

whether the converse reduction might not be more correct; but supposing we have done so much, can we then analyse further in thought the real meaning of the idea of conditioning? Apparently perhaps we may, but as a matter of fact we certainly cannot; for in the last resort all that thinking does is to denote by this or that name the idea of a necessary inner connection between different occurrences, which connection it cannot by its own activity produce.

And here it will be objected that I lay useless stress upon that which is self-evident; since it is of course necessary for thought, as the activity which connects and combines, to presuppose as given from elsewhere the elements which are to be connected and combined. My real object has only been to make this conviction very vivid for a moment, and to deduce the consequences which it involves. For with a little attention one will soon be convinced that these elements, which thought has thus to take up as coming from elsewhere, comprise nothing less than the whole sum of that knowledge of real existence and occurrence which was formerly ascribed to thought as its own possession. Thought is everywhere but a mediating activity moving hither and thither, bringing into connection the original intuitions of external and internal perception, which are predetermined by fundamental ideas and laws the origin of which cannot be shown; it develops special and properly logical forms, peculiar to itself, only in the effort to apply the idea of truth (which it finds in us) to the scattered multiplicity of perceptions, and of the consequences developed from them. Hence nothing seems less justifiable than the assertion that this Thinking is identical with Being, and that Being can be resolved into it without leaving any residuum; on the contrary, everywhere in the flux of thought there remain quite insoluble those individual nuclei which represent the several aspects of that important content which we designate by the name of Being. It would be more simple and more true to say that Being contemplates itself; we—since we exist—feel, perceive, experience, or know well enough what it is to exist; we—since we act—know well enough what we

mean (although it is unspeakable) when we talk not only of a temporal succession of phænomena, but also of the one being conditioned by the other. And in this sense all the world has known from the beginning what is the import of Being or Reality, for all the world has lived the meaning of these words; but if it has always been difficult or impossible to express by determinations of thought that which men have so plainly experienced in their lives, philosophy has not succeeded in removing the need for such expression; all she has done has been to find names for that which men experience; and since it is in a world of names that she lives and moves and has her being, she has sometimes had less vivid experience than others of that which is the object of her efforts.

It will be demanded on the part of Idealism that, as far as all such scruples are concerned, this question should at last be allowed to rest; it is admitted that we do not know how things can be and act, but their nature is said to consist, not in their reality, but in *what* they are and *what* they do. Now is this content of things really more accessible to thought? Whatever else thought may be, it is an activity of the mind; or if not this, it is at any rate a changing succession of states which mind experiences. Now, how can a succession of states copy and reproduce anything except states? Can they represent the nature that experiences the states which are reproduced? They can only do this if we go still further in our assumptions, and regard, not only what things are, but what they experience, as their innermost nature, and as that real existence which philosophy seeks. And thus, by a path the several stages of which we must here refrain from describing, Idealism would reach the admission that in truth it neither knows how things are nor what they are, but that it does know what they *signify*, and that this, their real existence, is immediately cognisable. What everything is in itself, what its nature is by which it exists and is capable of making its efficiency felt and of being different from other things, this may remain for ever inaccessible to thought. But with regard to the forms of that to which they are

destined, the forms of their changes, development, activity, and of their several contributions to the sum of reality—in all these relations things are comprehensible to thought, and are comparable among themselves; the essential significance of each, as far as it consists in these, is in itself susceptible of exhaustive expression in thought, whether or not we men are capable of discovering the thought which does express it. Thus Idealism, like Realism, comes to acknowledge that it is limited to a cognition of what happens in and between things that remain unknown; but it believes that in knowing the import of what thus happens it possesses all essential truth; that it is only for the realization of this truth that things exist.

Religious belief in understanding the world as a divine creation has always cherished and expressed the same conviction in another way. It denies just as vigorously as philosophic Idealism that there is in things a nature (or any part of their nature) which they have of themselves. All that they are, they are by the will and intention of God; the most essential part of their nature consists in what God meant or willed that they should be, in their significance in the unity of the cosmic plan. Religious belief did not maintain that it could penetrate the plan of this unity, but in its representation of God were contained, as it were, centres of light which illuminated each other, and also cast enlightening rays upon the created world. The strict order of its phænomena was regarded as in fitting correspondence with the immutability and justice of the Creator, its beauty with the infinite fulness of His blessed nature, the order of events in the moral world with His holiness. To trace back all the particulars of reality to these creative forces in God was neither attempted nor regarded as possible; it was sufficient to believe in their truth on the whole, unmoved by the apparent contradiction of many perceptions, and, as regards particulars, to be ever drawing afresh from a selection of favoured phænomena the living feeling of their universal and governing efficacy.

Philosophic Idealism tried to outbid this faith in two

directions. It first took offence at the unconcerned way in which religion spoke of a personal God, and regarded Him as creating things out of nothing, and then entering into a relation of reciprocal action with these realities that had been manufactured out of nothing; the metaphysics of all these processes needed to be found and explained. But none of the attempts to find and explain them (which we shall have to consider more particularly at a later stage) attained its end; since they were destitute of all ideas concerning the relation of God to the world (ideas which religious belief had framed anthropomorphically), they have left as their only result the assertion (couched for the most part in artificially obscure forms of expression) that there is a single supreme Idea that penetrates all the phænomena of reality and gives them form and order; but they do not say how it does this. And just because it was at most the meaning of the universe and not the origin of its reality which was accessible to Idealism, everything that might remind men of this problem seemed to fall out of its consideration. God was no longer spoken of, for this name signifies nothing without the predicates of real and living power and efficiency; it was only the Idea that could be spoken of, the content of which was supposed, in some incomprehensible way or other, to really constitute the nature and significance of the world. But the idealists hoped to be able to express the whole content of this Idea completely and systematically in thought, and by this second performance to far surpass religious belief, which only knew in a general way that divine purpose which in particulars was inscrutable.

Even this promise could only be fulfilled by breaking off from the nature of the thing that which remained incomprehensible to thought. For in fact the living forces which had been beheld by faith in God showed themselves as inaccessible to thought as the sensuous impressions which occur in perception; for them, too, we invent names; and their content, too, is known to us through living experience, and not through thought. What is good and evil remains just as incapable of being reached by mere thought as what is blue or sweet; it

is only when we have learnt by immediate feeling the presence of worth and of unworth in the world and the gravity of the difference between them that our thought is able, from the content thus experienced, to develop signs which subsequently enable us to bring any particular case under the one or the other of those two universal intuitions. Can one find in concepts the real living nerve of righteousness? Much may be said of compensations, of the correspondence between conditions originated and endured, of the return of good and ill to him who caused them; but what movement of thought explains the interest which we feel in these forms of occurrence when, and only when, they indicate what we call a retribution? Are love and hatred thinkable? Can their nature be exhausted in concepts? In whatever combination of duality to unity, or whatever division of that which might be one, their significance may be found, the expression of that combination or unity will never do anything but state an enigma. For an enigma is the specification of signs which do not of themselves set forth the whole living content to which they relate, this having to be guessed because it is not plainly contained in them. Now not only did philosophy hope that it could reproduce in thought all the living content which was possessed by faith in a personal God, but it imagined that it was applying a process of ennobling clarification to Him who is more than anything that can be called an Idea, when from the dimness of that which is experienced by the whole heart and the whole soul, it raised Him to the dignity of a concept capable of being an object of pure thought.

Both the natural and the moral world received this treatment, which traced back the real content of all things and events to what was formal in their mode of appearance, and regarded the things and events themselves as merely destined to realize these forms. The creatures of Nature existed merely in order to take their place in a classification, and to provide the logical degrees of universal, particular, and individual with an abundance of phænomena; their living activities and

reciprocal action took place in order to celebrate the mysteries of difference, of contradiction, of polar opposition, and of unity; the whole course of Nature was destined to represent a rhythm, in the movements of which affirmation, negation, and mutual limitation alternated with one another. Consideration of the spiritual world sometimes in a kind of realistic fit regarded thought and all spiritual life as merely the highest form assumed by those unfathomable powers of affirmation and negation, opposition and its removal; sometimes in a more idealistic mood it regarded thought as the real nature and goal of all things, and those forms of mere blind being and occurrence as imperfect preludes. But it never succeeded in establishing *thought* as what is most essential in *mind*, and *thinking about thought*, the pure self-reflection of logical activity, as what is highest in *thought*. The existence and the worth of the moral world were indeed not forgotten; but even that which *ought to be* had to submit to this reduction to form; it seemed as though it only *ought to be* to the extent to which it reproduced in the forms of its realization those much-esteemed relations which were held to be the real nature of being.

I break off in the midst of an enumeration of these errors. This short sketch has been partial, leaving much unmentioned which within the philosophic school itself is regarded as weighty and important, and laying stress only upon what could serve as an introduction to the end aimed at by our present inquiry. Philosophy is not at present exclusively ruled by the false Idealism with which we have just been confronted, nor is it impossible to avoid the errors which deform it; but this is not the place for developing the conviction which we wish to maintain. Here we can only give it provisional expression, and affirm that the nature of things does not consist in thoughts, and that thinking is not able to grasp it; yet perhaps the whole mind experiences in other forms of its action and passion the essential meaning of all being and action, thought subsequently serving it as an instrument by which that which is thus experienced is

brought into the connection which its nature requires, and is experienced in more intensity in proportion as the mind is master of this connection. The errors which stand opposed to this view are very old. It was a long time before living fancy recognised in thought the bridle which guides its course steadily, surely, and truly; perhaps it will be as long again before men see that the bridle cannot originate the motion which it should guide. The shadow of antiquity, its mischievous over-estimation of reason, still lies upon us, and prevents our seeing, either in the real or in the ideal, what it is that makes both something more than reason.

## CHAPTER II.

### WORK AND HAPPINESS.

Pleasure and the Means to Pleasure—The Patriarchate—The Adventures of the Heroes—The Liberal Culture of Antiquity—Slavery—The Growth and Preponderance of the Industrial Classes—Economic Character of the Present Time, and its Causes and Effects—The Modern Forms of Labour and their Social Consequences.

§ 1. NATURE with its unchanging order, and Society with the variability of its internal relations, have from the beginning been spread out before men as the great fields of all activity. It was need — partly the urgent need of self-preservation, partly the more calm but not less powerful need of mental satisfaction—which in the one field as in the other gave birth to the first action along with the first reflection, and did not permit the deferring of reaction until the completion of all science. Men were obliged to begin to work upon things and to use or construct the relations of human society, while their store of cognitions was as yet incomplete; but the tentative effort enriched scientific knowledge by its results, and the increase of knowledge enlarged the sphere of men's powers and the spirit of enterprise. Thus science and life were developed in constant action and reaction. It was only while thus occupied with the whole wealth of experience, that knowledge developed by degrees all the multiplicity of its modes of investigating, analysing, and combining; it was only through the wide extension of its contact with the most varied kinds of objects that it discovered its own instruments, and learned to comprehend its tasks (which were presented to it at first in isolation) in that connection which as perfected science it ultimately seeks to reflect in the form of a systematic combination of all truth. However attractive the history of this

development may be, we must renounce any more detailed consideration of it than has been given in the brief survey which we have just concluded. Since the general purpose of our reflections has regard to the totality of human development, we have no further space for the representation of the inner regularity and beauty with which the edifice of science—a self-sufficing whole—grows up from its own principles and becomes articulated; our attention is due in greater measure to the other division of this reciprocal action between knowledge and life—that is, to the fertilizing stimulus which life itself, the customs of commerce, the spirit of social institutions, and the enjoyment of existence, receive from the gradual development of the world of thought.

Human life being dependent upon Nature for its continuance, men had first of all to attend to the business of self-preservation by satisfying external needs, in order that they might then be at liberty to devote themselves to their real vocation in enjoyment of beauty, delight in holiness, and practice of what is right. Now a consideration of the efforts which have been directed to the production and perfecting, the administration and diffusion of material goods might easily allure us into a wide and brilliant region of scientific development which touches life at innumerable points—might allure us, that is, to the history of the Natural Sciences. Yet we forbear a systematic exploration of this region. For why attempt to repeat in a narrow and insufficient compass what has already been given in detail in innumerable delineations? The triumphs of human sagacity in the investigation of the celestial regions and the remote parts of the earth, in the explanation of the chemical transformations of bodies and of the processes of life, in determining the conditions of action of all forces, and analysing composite forces into their elements—all these are in our times favourite subjects of triumphant exposition and eager attention; lauded in a thousand ways, it is not they themselves but the blessing that they have conferred on human life which stands in need of mention. And in saying that this needs mention, I do not

mean that it would be worth while to repeat the enumeration of those countless individual benefits, concerning which (after the numerous accounts that have been given) we now know to what principles of natural science and to what inventive application of those principles they are due. Let us suppose the place which I here leave vacant to be filled by one of those easily obtainable descriptions which show us how the progress of knowledge of Nature, lingering at first, has in modern times, advancing with greatly accelerated speed, given new developments to life—how we have learnt to overcome innumerable obstacles which Nature opposes to human activity—and how increased insight into the connection between different effects in Nature has put us in a position to produce with ease, from despised material which in former times was thrown away as refuse, instruments of enjoyment which in those times were either not known, or could only be procured with difficulty from some few sources which Nature voluntarily set at man's disposal. Having supposed, then, that this picture of an increasing dominion of Mind over Nature stands clearly before our eyes, in what is it that the blessing of this dominion consists? And in asking this question we refer not only to the fact of dominion, but also to the advantage which increased power over Nature affords for the attainment of that which is the special destiny of man.

Unless I am mistaken, the answers to this question will not be harmonious. In moments of deliberation, in which we survey with a comprehensive glance these achievements of human intelligence, the undeniable advance which they show may rejoice us with the feeling of satisfaction which naturally springs from every increase in efficient strength. But if looking at life as a whole we seek there the useful results of this progress, it may seem doubtful whether this greater dominion over Nature of which we boast, does not result for us in a greater dependence upon that power over which we are continually victorious. For every fresh commodity that we produce immediately becomes a necessity, and entangles us in new efforts—on the part of the community to produce and

exhibit it, and on the part of the individual to obtain it. Every new discovery of science that has splendidly abridged laborious modes of attaining some definite end, has forthwith exhibited as necessary a multitude of new ends which the new resources tempted men to aim at. Hence though much labour has certainly been materially simplified, as science taught men better combinations of the means by which all effects are produced, it is plain that, taking life altogether, labour instead of becoming gradually less has become greater. The old complaint that so large a part of men's time and strength must be sacrificed to the mere maintenance and securing of existence, is not allayed but sharpened; ever more and more room is taken up, in our short span of life, by the preparations and equipment required for life itself; the sunny strip of leisure seems ever to grow narrower and further away on our horizon—the leisure in which, in quiet communion with self or cheerful intercourse with others, we hope to enjoy the final net result of so much effort—a result worthy of our human nature. Thus it seems as though the enlarged possibility of satisfying a multitude of wants, taken in conjunction with the amount of work necessary for the realization of this possibility, did not make us happier on the whole than men were in the times when those wants, the means of their satisfaction and the labour required for this, were all alike unknown.

But equally old with this complaint is the rejoinder that it is erroneous to try and divide labour and enjoyment by a sharp boundary line, as if they were as opposite as commodities and the prices which are paid for them; not only the possession of the enjoyment, but also the receptivity for it, is given to leisure as the result of what has been experienced and gone through in labour; labour is itself a source of enjoyment, and not merely the road thereto. We do not need to draw out in detail the universal truth of this remark; we have already had frequent occasion to consider how little the spiritual content of life in an unlaborious state of Nature, and the enjoyments of leisure in such a state can be compared

to those with which culture rewards the exertions of a life's hard work. The human soul is not like a plant which requires only that the universal conditions of its existence should be favourable in order to exhibit in succession the several beauties of its cycle of development—bud, blossom, and fruit; it is only the ever-changing struggle for external necessities that stimulates us to acquire knowledge, that furnishes our leisure with subjects for reflection, and at the same time deepens the value which we set upon those social relations of which natural order lays the foundations—deepening it until it becomes that refined moral feeling which finds the most stirring interest of life and the most elevated enjoyment in the discussion of varied views of life, and in emerging victorious from its moral conflicts. We desire even for the individuals who are the inheritors of some long-established civilisation, the education which only life can give; the traditional ideals of all that is good and beautiful, although even in tradition itself they have long been bound up with representations of those definite relations of life in which they are to be realized, yet seem to stir the soul vaguely, hovering before it formlessly and without being seriously apprehended, until incessant contact with the hindrances of real life and with the claims of others reveals the full significance of their content—the content that is of the traditional ideals—and makes the contemplation and realization of them a life-work which is self-sufficing and self-rewarding. Without this complication and intensifying of stimulations and hindrances which culture brings with it, the isolated experiences and activities of men would hardly have produced even an indefinite sense of something really worthy. Thoroughgoing, however, as the superiority of culture to a state of Nature is in a general way, yet it is not equally indubitable that its internal progress involves in itself a continuous heightening of the enjoyments of life, and that there is not a point beyond which the increase of labour of all kinds leads men in living and in maintaining life to lose sight of the ends of life. At all events, in all periods of many-sided civilisation there seems

to remain a longing after the simpler conditions of past times—a proof that it is not easy for men to bring the results of their own progress into harmony with the wishes which they call upon life to fulfil.

In the patriarchal state which the Old Testament writings describe, there is presented to Christians, as it were a compendium of simple and noble life, which, glorified by the idealizing power of distance and of poetic representation, may well seem to this retrospective longing to be an exemplar of life. Certainly traditions of earlier civilisations and the possibility of contact with the developed culture of neighbouring countries was, even so early as this, at the foundation of that which interests us in the patriarchal life; this life being not so wholly self-dependent as it seems in the Scriptural picture, where it is presented in strong relief detached from its surroundings. But external relations were still so slack that friendly obscurity veiled the surrounding regions, and all the problems and all the enjoyment of life remained concentrated within a narrow circle that could be taken in at a glance. Men's wants were provided for by a labour that was light, or in which there was as yet little complication and little division of employments—labour that consisted chiefly in the unirksome tendance of living creatures; if want occurred it was regarded rather as the disfavour of Nature than as the result of social evils. As the division of labour had not yet taken place, life had not yet the aspect of an uncertain and ingenious struggle for existence; careers were marked out upon which each entered with a regularity as great as that with which Nature develops corporeal life; the differences of social consideration which inevitably appear at an early stage were not yet combined with such intellectual and philosophic differences as might make one man's interests in life unintelligible for another; connected chiefly with family relations, they were yet important enough to introduce into life, instead of an enervating equality of claims, a variety of reciprocal moral obligations which were profoundly felt. There were united in the head of the tribe all those functions

of work and action which give worth to human life; father and master, law-giver and judge, prince and priest, all in one, he experienced in himself the full and undiminished enjoyment of that mental power which lifts man above all Nature, and set before his people this unity of life in visible embodiment. If to all this we add that to the religious belief of this time and of these tribes their connection with God was an experience that was ever being renewed, we may well admit that we find in the patriarchal period a concentration and intensifying of consciousness and of life which prevented the attention of individuals from passing over unobserved any attainable happiness or any recognised duty.

Doubtless this form of life could not be maintained for ever in its completeness; the greater concentration of population and the transition to stationary life developed new needs and required new kinds of labour, which led to different social arrangements; also we would not conceal from ourselves that in reality the spiritual content of the patriarchal life must have been poorer than it appears in the poetic representation which emphasizes its bright parts and says nothing of the duller intervals that come between. Certainly the moral significance of all individual relations of life was sounded to its depths and reflected upon with remarkable refinement of feeling, but the relations themselves were too simple to produce that complex and varied wealth of thought, in the possession of which advanced civilisation always feels in the end that it is superior to those simple states of society which in other respects are envied. But the patriarchal form of life, the self-centred completeness and isolation of the family and the home which, being self-dependent to an extreme degree, provides for all its own necessary wants, and is able in its own little circle to find a solution of all essential problems—this form of life must always be regarded by us as the type to which we must seek to revert, in opposition to that unattached condition that in a more complicated state of society makes the individual feel like a lost atom, tossed hither and thither by the wholly incomprehensible forces of a great all-embracing

external world. Let us now see whether increasing civilisation has brought with it the conditions of an inner enrichment of this form of life or only causes of its disintegration.

§ 2. To reap without having sown is naturally man's original mode of existence. When the simplest appropriation of natural products no longer sufficed, the labour that tends, transforms, and produces, with all the patience, self-denial, and steadiness which it requires, long continued to be held in contempt as compared with the destructive activity which in the chase, in robbery, and in war took possession of finished products capable of ministering to human enjoyment. The period of Life according to Nature was succeeded by the Heroic Age—an age in which men's mode of life was an imitation of that of beasts of prey, from the weakness of admiring which the human mind will never be wholly free. For, indeed, the struggle in which one's own existence is staked for speedy gain, and one's whole nature is roused to all the activity of which it is capable, not only swells the consciousness of the combatant with proud and passionate excitement, but offers to imitative poesy much more picturesque and intelligible images than the quiet industry which transforms a peaceful society merely by conquering the inertia of intractable objects. The ambition of emulating the lion or the eagle developed indeed all the natural beauty of the human race, and all those traits of capricious magnanimity and uncertain generosity which, combined with just as inexplicable fits of savagery, makes the "king of beasts" such an attractive object of contemplation to us; but human capacities were not moulded by this kind of life for their own special and appropriate work. At all times this mode of thought—this emulation of the beasts—has been powerful enough; in the most remote antiquity it shows itself openly in robbery by land and sea; sword and lance were to the Greek Klephthen as plough, sickle, and wine-press with which to sow and reap and press the wine from the cluster; the Romans, in their legends, claimed robbers as their ancestors; and to the Germanic nations it seemed unworthy to seek by labour for that which might be

gained by the sword; the highway robber of the Middle Ages, and the runaway vassal, acted from the same feeling. All of them were right in so far as this, that labour is apt to enslave the mind when it requires exclusive occupation with objects to the peculiarities of which the labourer must accommodate himself, by narrowing his circle of thought to but few trains of ideas; on the one hand it destroys receptivity for the various enjoyments of life, and on the other hand may paralyze the elasticity of his powers, which are naturally inclined to exercise themselves upon reality in various ways. But they forgot that, notwithstanding all this, it is only labour which can develop a coherent human character, and that the unrestrained exercise of strength which they thought so splendid is only superior to the savageness of wild beasts when it lays aside that character of adventure which employs strength only for the sake of subjective enjoyment, and takes on the character of protective service, which applies the same powers for the defence of interests that are worthy in themselves, doing this under a sense of obligation.

The ends of human life, and the means of attaining them, were thought over by the Greeks more eagerly than by other nations. In the world of the Homeric poems there appears a dark stratum of labouring bondmen as the foundation upon which rests the serene and gracious happiness of the nobles; but either there is as yet too little difference of needs and of cultivation to embitter this contrast, or else tradition is so obscure that it does not make plain to us the sharpness of the contrast. Of Labour, which had not yet split up into a number of branches dependent upon one another, it was therefore still easy to take a comprehensive view, and it was regarded with honour, especially in as far as it stimulated the early-developed artistic sense of the people, not supplying a foreign demand, but serving to satisfy the needs of a great and self-sufficing domestic economy. When the brilliant development of mental life in Greece began, these relations gradually changed. In proportion as there was an increase in the

significance and excellence of the enjoyment which advancing culture promised to him who had time for it, men sought to shorten the labour necessary for supplying the needs of life; human life properly so called had its beginning in leisure, and to learn how to occupy and enjoy leisure in a way worthy of humanity was the business of Greek education, which, in order to attain this end, not only did not shun the labour of severe and long-continued discipline, but even undertook it with eagerness.

I will not here inquire whether the symmetrical development and exercise of all the bodily and mental powers with which Nature has endowed us—in other words, whether being educated to the perfection of human kind—is in reality the whole destiny of man. But it is certainly correct to hold that the essential difference between the maxims of this antique art of education and of that of modern days, consists in this, that in the education of the ancients the cultivation and perfection of skill were esteemed more highly than the labour to which the skill was applied, and the products of that labour. Every individual was to be formed into a perfect specimen of his race, the race itself having nothing to do but to exist and rejoice in its capacities of enjoyment. Education fulfilled its task in producing the attitude of perfect humanity—that reposeful and plastic stamp of character which henceforward in all the occurrences of life with which it meets or by which it allows itself to be reached, maintains an unchanged mien, and employs its skill to raise itself to independence of material things. To this many-sided and self-contained development the spirit of modern education is certainly less disposed; it favours more than is right an extensive acquaintance with facts as compared with general cognitive ability, productive and monotonous labour as compared with the free exercise of all man's powers, the narrowness of efforts restricted to a definite occupation as compared with interest in all human relations. Yet there is at the bottom of all these errors one characteristic which is not to be despised—the conviction that man's destiny is, not to present a perfec

embodiment of all the beauty of his kind, but to develop into an unique individual—a development which cannot be attained by aimless exercise, however splendid, of the capabilities common to all, but only by devoting these in earnest labour to the accomplishment of some individual life-work. Only in such voluntary devotion of the powers bestowed by Nature and developed by education, to the laborious pursuit of some definite end can the individual win as his personal property the endowments of the race, developing them, in a course of evolution which extends through life, to an individuality in virtue of which he becomes something more than a perfect exemplification of a general concept.

We by no means lose sight of the fact that the active political feeling and the love of art of the Greek nation and its receptivity for science provided very worthy occupation for leisure time, and that in the eager and steady pursuit of great enterprises, or the constant but more calm interest taken in public business, life found a sufficing content and vocation. But the contempt which was felt for common, rough, hard work, and the low estimation, extending even to artists, in which all handicrafts were held, did not fail to exercise an injurious influence. Much as men laboured, there was not formed in any degree worth mentioning that love of work which is jealous of the honour of its handicraft, which is able to find sufficient sources of mental satisfaction within the narrow limits of a monotonous occupation, which delights in colouring the whole of life with the ways of thought peculiar to its calling, and loves to glorify its mental gain in song. This was chiefly the reason why there was lacking in public life that fidelity to duty and conscientiousness bordering on rigidity, which is more surely produced by the steady exercise of a modest calling than by the pride of a culture which can take any point of view, and has no moral obligation to take one rather than another. Only where morality requires fidelity in small things can great things be secure. The new culture estranged even family life from the beautiful and simple patterns of the Homeric age. For the more exclusively

that culture was directed to political interests and scientific occupations, the further were women from keeping up with it and participating in it. The society of ancient Greece was exclusively masculine. It was only in assemblies of men that there was the pulsation of that which we call ancient life; the women lived in domestic seclusion, relieved from burdensome supervision in Sparta only, and even there they did not gain much from that life of the time in which they were allowed to share. The absence of community of labour entailed also absence of the feeling of equal human rights; and of the gain which woman's mind can contribute to life, little accrued to the Greeks. I do not mean that the natural good disposition of the people did not afford room for the exercise of all the love and tenderness of family feeling which we admire even in the beasts; but still in common opinion the female sex was regarded as the less perfect creation. Plastic art knew how to honour its beauty, and poetry its charms; but we need only remember the evil sophisms by which, in the Eumenides, Æschylus (by no means an isolated example) proves of how much less consequence the mother is than the father, in order to recognise the insulting contempt with which Greek civilisation on the whole looked down upon women. It has nowhere produced a conception which in seriousness and human worth is comparable to the noble ideal of the Roman matron.

The worldly wisdom of the Indian gives to the man the toil and the exciting enjoyment of combat and to the woman hard and stupefying labour. The Greeks did not, indeed, make such a division; but not less superficially and mechanically did they solve the problem of determining the relation between labour and a liberal enjoyment of life, since they solved it by the institution of slavery, and this without reference to any natural relation which (as, *e.g.*, difference of sex or of race) seems, to the untutored mind at least, to furnish some justification of such an arrangement. When Hector and Andromache with foreboding sadness lament the misery of slavery which awaits the widow and orphan, not only are we somewhat reconciled by the melancholy beauty

of the verse, but, moreover, in this heroic age such misery appears as an event which naturally occurs in the order of life and for which the as yet unfurnished social science of men knew no remedy. In the noontide of Greek civilisation, a time of political insight and reflection upon the order of society, we are revolted by the calm way in which even the noblest minds regard slavery as being, as a matter of course, a constituent part of their political structure. "When the shuttles set to work of themselves," says Aristotle, "then we shall no longer need slaves." It is not the first clause of this sentence (which has so often been regarded as an inspired anticipation of future machine-labour) which seems to me remarkable; for Aristotle is here giving expression not to any anticipation but to a recollection of the dædalian works of art which mythology had extolled. But what is remarkable is how wider development (governed by the idea of the advantage to be expected) seeks, under a condition of things in which slavery exists, to realize the contradictory notion of an instrument that acts intelligently and yet remains a mere instrument. With much adornment of logical periphrasis it veils but slightly the aristocratic egoism, which from the self-regard of the favoured individual, from the requirements of the refined and liberal culture of one man, infers the servitude of others as a matter of course. The capabilities of men are various; Aristotle distinguishes kingly souls which are capable of living nobly and worthily in their own strength, from others which can neither set before themselves any intelligent aims in life, nor if they had such could find the means of working them out. But the moral duty of careful teaching of the weak and compassionate love towards them is not assigned to the strong as a consequence of their superiority; the title of "kingly souls" once bestowed introduces unperceived into the discussion the claim of sovereignty, and the weak become the chattels of the strong.

Such a foundation would be even worse than the reality. Debt and capture in war were everywhere the most frequent

causes of slavery. In the first case, the harshness of the victor may be understood as a result of the hatred which survives the contest, this hatred at any rate being a passionate emotion; and in the second case, a series of deductions which are not without some show of justice, easily leads to the conclusion that the debtor who is unable to pay off his debt should with his capacities of labour be made attachable. Then in order to secure the use of these capacities his freedom should be restricted, so that finally, in order that they may be exchangeable for money, his person should be, not indeed immediately vendible but liable to be bound to render an equivalent in labour to any third person in return for the payment by that person of the sum owed by him. In both cases there is wanting the indispensable recognition that the dignity of human personality does not allow either of such a satisfaction of the victor's passion nor of such a mode of carrying out legal claims; but the cold-bloodedness of Aristotle's sophistical deduction is without even the feeble excuse which may be made for these two historical causes of slavery.

The harshness of theory was only partially mitigated in practice. What was the sign by which those kingly souls were distinguished from the souls that were born to serve? In the first place of course Hellenic pride regarded those who were not Greeks as destined by Nature to slavery; not because they were incapable of being civilised, for even the barbarian slaves who had been purchased were educated in order to make them more useful, but simply on account of their descent. In the endless internal wars, however, inhabitants of conquered towns were sold as slaves, Greek was enslaved to Greek in spite of the condemnatory public opinion of those not concerned in the traffic and of occasional laws forbidding slavery or requiring that redemption should be allowed. For the rest the condition of slaves was various enough. Cruelty and delight in torture were not prominent national faults of the ancient Greeks, but just as little were they a tender-hearted race; what was most important was

that their moral principles depended upon the existing condition of their speculative convictions without any active and immediate sense of duty. Athens treated her slaves mildly, and it may be that their condition was happier than that of the free proletariat of more modern times; Sparta had a doctrinaire tendency to inhumanity due to her principles of statecraft, the Lacedæmonian youths roaming steathily through the forests and plains in order to slay secretly the discontented helots, present in the midst of fair Greece a dark picture which is genuinely Indian in character.

Upon this foundation of deep dark shadow there rested the brilliant development of liberal culture which has made Athens and some other of the Greek states an imperishable example to posterity. The *αὐτάρκεια*, the self-sufficingness which Greek philosophy so often extolled as the crown of human perfection, was by no means to be found in this constitution of society, for here the enjoyment of some depended on the labour of others. Therefore, however great the mental development might be which was so won (and it can hardly be proved that it could have been won in no other way), yet in the clear recognition by the common consciousness of the unsuitableness of such a foundation for the highest human perfection there is certainly involved a great and perceptible advance in human progress—an advance, however, that only came slowly and that is not yet complete.

In the period succeeding that of which we have just spoken, the Roman Empire only developed further the pernicious germs referred to. The Italian tribes being actively disposed, and not much inclined to the cultivation of a variety of industries, were all the more attached to the unvarying pursuits of agriculture; to this kind of labour even the Romans continued for a long time to recur with liking and esteem. But the continuous wars in which the growing state was involved prevented manufactures from flourishing, and gradually led to a habit of taking possession of the necessaries of life by force of arms instead of producing them; and subsequently led the Romans to treat the greatest part

of the known world as though it had been a mere store-house for themselves, thus dulling their own liking for labour. The way in which the Roman dominion spread, not through plundering expeditions, but with regular administration and exaction, easily explains how the gains of conquest led to the disproportioned wealth of a few, while the majority became poor. The Romans had to spend their own strength in the labours of unceasing military service, and the home-returned veteran lamented that he could no longer find a clod of earth on which to rest his head, and that there was not even room for him to work for wages, since all labour was in the hands of the multitude of slaves taken in war. Society was shaken by repeated attempts to regain the lost basis of economic equilibrium by means of repartitions of land; the state was forced to bestow in benefactions of food and money the fatal gift of unmerited alms (instead of wages gained by labour) upon a multitude who soon ceased to demand anything but bread and theatrical representations. Public life certainly continued for a long time to have, in the greatness of political activity, an interesting and important content; the strict family morality of former times long continued to exercise its educative influences; but rigid legality had in Rome's early days imposed even upon Romans harsh restrictions of liberty and bondage to creditors, and made the power of the father and master unlimited, at least in theory. The same disposition, not softened by any varied and humane culture of native growth, and having once for all missed the true principles of morality, led to the extreme of doctrinaire and systematically regulated cruelty in the judicial and legal ordering of the condition of slaves.

§ 3. Antiquity did not succeed in dividing labour and commodities so as to produce universal happiness, or even so as to escape the reproach of avoidable injustice. But it witnessed a many-sided mental development in which men sought to find the aim of life and the way to enjoy life worthily, and if minds had not derived much benefit from the

educative effects of labour, yet on the other hand the developed taste of the liberal ancient culture had a stimulative effect upon labour by setting before it an abundance of interesting tasks. We see this effect in a pervading artistic grace and in the harmonious style of treatment to which it is owing that even in our view the numerous small remains of antique labour seem to represent a coherent wealth of ordered beauty in the surroundings of life. We see it also in the splendid works in which the organizing activity of political administration combined a multitude of subject powers. This condition of things was changed by the storms of national migration. The vague adventure-loving impulse of the heroic age again obtained ascendency over significant mental culture; slavery as a legally existing institution did indeed gradually disappear; but the labouring section of mankind, as contrasted with those who carry arms, sank into a state of dependence which in many respects was hardly different from slavery. Neither in detail, however, nor on the whole, did the newly dominant element afford to labour the stimulus of interesting tasks. For the requirements of private life were neither so varied nor so refined as before; the degeneration of political life into a multitude of territories loosely federated, and constantly at war with one another, prevented any of those great enterprises which had been the pride of antiquity. Yet ancient art and its productions lived on as well as they could; and these transmitted remains subsequently furnished an animating stimulus to renewed advance; but for a long time nothing new arose, and no age is so poor in progressive discoveries and inventions as the interval which divides the downfall of the classical world from the renascence of the sciences.

And it was just labour which by its peculiar development, especially in the more northern countries of Europe, was to change the whole aspect of life, and to give it a new and permanent direction. When the storms which stirred the nations had subsided, commerce which again began to traverse the different countries awoke new wants by the commodities

which it introduced, and new efforts to satisfy these wants at the price of native productions. At the places where men met to carry out these exchanges of commodities, settlements were formed with which by degrees the native industries of the surrounding country became permanently connected. Both the absence of legal security in those times, and the imperfection and awkwardness of communication with distant countries, necessitated close combination between related industries, and at an equally early date made these combinations inclined to exclude any workman who had not, by undertaking the duties of the brotherhood, also acquired its rights. These noteworthy historical circumstances caused a man's chosen work to become a fixed calling, which determined for each individual his rank in the society; for in fact his work was to him no longer a mere quantum of labour which he had to get through, and by which an equally definite quantity of enjoyment was to be purchased, but by his having on his part voluntarily taken up this work he had become instead of a mere specimen of the race an authorized constituent of human society. The same articulation of society, which in oriental caste had become as it were hardened into a natural distinction, irremovable and extending from one generation to another, was reproduced here, with the difference that it was now an order in which the individual was entitled to freely choose his own place; just as much a matter of course as that each naturally belonged to one family was it that he should not only do work or carry on business as a member of the society, but that he should also follow a definite calling, sharing its duties, rights, customs, and enjoyments. Thus all labour was systematized into guilds; even beggars and vagabonds were regarded as constituting a fellowship, having like the others a right to exist, and having to establish this right by the observance of certain customs. These combinations which first arose from community of labour soon involved a community of all the interests of life; at social entertainments, and in the administration of civic business, men took part not simply as men and as citizens, but they felt both that it was

from the rank to which they belonged and from the guild that their right arose to participation, and also that the same source furnished them with the characteristic and expressive forms of such participation.

Much in this constitution of society may now appear to us as arbitrary restrictions; but that which makes us feel it restricted then existed either not at all or only in a very slight degree; and it is really doubtful whether our feelings in the matter are quite justified. That remembrance of differences of rank should be dragged into free social intercourse may easily seem to us preposterous; but there was then no general culture which could make the interchange of opinion interesting, and no generally accepted code of morality capable of imposing fixed and beneficent forms of intercourse. Still less active was the consciousness of a political order representing social advantages of more than mere local interest; on the contrary, those town communities which had arisen from definite departments of labour were the only living wholes which being united by reciprocal needs pursued common ends. Thus it was natural that political importance should accrue to individual trades in the localities where they flourished—an importance by no means correspondent to the nature of the labour in which they were engaged, but quite appropriate to a society of men bound together among themselves by similar habits of life and reciprocal duties and rights.

The results of this relation were of advantage to labour itself as well as to public life. Consolidation of a trade into guilds, beside which others exist, roused natural emulation and made men desire to be esteemed for the sake of that condition in life which they had chosen. There was developed that sturdy temper which makes men seek to maintain before all the world the honour of their handicraft, and makes them give themselves to their work with heart and soul, in order that they may increase its excellence; slowly and with difficulty, not as yet helped and supported by any science, artistic fancy once more gained a footing upon this path of thoughtful labour. Public life gained in prosperity and beauty by the

humane institutions primarily founded by the brotherhoods for the sake of their members and by the contributions which they vied with each other in rendering for the advancement of the common good; national codes of morals having long ago fallen into disuse, family life, principally under the influence of this industry, developed the new growth of civic discipline, the strictness and steadiness of which recall the golden age of Roman honour; and yet being pervaded on the one hand by Christian thought which tends to freedom, and on the other hand by the spirit of active industry, it shows in not a few points an undoubted advance of the human race.

For a long time this form of life, in which work and enjoyment are blended as much as possible, was opposed to the adventurous spirit of chivalry, which found that as society became gradually consolidated, occasions of knightly deeds began to fail, society having even to defend itself against the attacks of the knightly order; but the new view of life made its way notwithstanding, and if political independence or a recognition amounting to the same thing were not very rapidly reached, yet this philosophy soon began to determine the general forms of society. It is by it that the material wealth of modern countries has been won; from it proceeded at a later period the revival of learning and art; so to it was due nearly the whole content of life; and it was but natural that it should also influence the external character of life, even to costume and the tone of conversation. But it did not reach this supremacy until influential circumstances of all kinds had already begun to produce an essential alteration of its character.

§ 4. The great geographical discoveries with which the Middle Ages closed, the rapid development of the physical sciences which soon followed, the extraordinary effect which the discovery of printing had in extending, accelerating, and facilitating the communication of thought, and the similar influence exercised by the development of navigation and finally of steam power upon commerce—these things it is that have chiefly given to modern life its distinctive character as regards enjoyment, industry, and interchange of goods.

The outlines of land and water on the earth's surface have now been ascertained with a completeness which causes us to believe that we cannot look for any surprising discoveries in the future, and for the first time the various races that dwell upon the globe have come within sight of one another. The interior of great continents and their resources still remain in deep obscurity, and many nations are still seeking points of departure from which they may proceed to the formation of permanent social relations; but everywhere we find an investigating zeal which is no longer content to amuse the imagination with a description of distant wonders, but desires to bring all these unknown and distant regions into useful connection with our own civilisation. The explanation which science is now beginning to afford of the extensive connection between natural effects all over the surface of the earth already gives useful support to these attempts, hindering some adventurous undertakings by showing their economic uselessness, and encouraging others by pointing out their probable good results. Commerce, in equilibrating supply and demand in the most distant regions, and being able to effect desirable exchanges with increasing ease, is approaching the solution of its problem, which is to unite all parts of the earth into a single economic whole, to supplement the niggardliness of one climate by the fruitfulness of another, to guard against the dangerous fluctuations of society caused by famines in ancient times and in the Middle Ages, and to make the most inhospitable regions fit to be at least a temporary abode of human beings wherever Nature has not set limits to men's further advance by refusing the gifts which are absolutely indispensable to life. Political projects which have never been altogether independent of economic considerations are now obliged to be made with a more careful calculation of the much more complicated actions and reactions upon which the power and welfare of states depends. Perhaps an accurate judgment of what is here advantageous is in most respects still in its infancy; yet to some extent we clearly see the restraining power which is exercised upon the warlike instincts

of mankind by the consciousness of this connection of complicated relations which men are bound to respect. Not indeed unfailingly, nor in all respects advantageously, is this influence exercised. For however desirable may be the restraint of coarse and merely destructive forces, it is by no means desirable that the whole of life should be fettered by material possessions and by that love of peace which would sometimes be willingly deaf to the call of honour from fear that such possessions should be endangered.

The opening of the boundless realms of the new world has in another respect had a favourable effect upon political life. Many institutions and conditions which had been handed down by long tradition, oppressed mankind as with the consciousness of a tedious and hopeless malady, and now an opportunity was afforded it of making vast new constructions; it could now learn by its own fresh experience what strength and activity human life demands when men are forced to return to the most primitive labour, what benefits (perhaps too lightly esteemed) may be combined even with the evils of ancient civilisation, and finally what new and more vigorous institutions may be established when men are unhampered by tradition and are free to be guided by existing circumstances. It had hitherto been as impossible for history as it is for the physician to make the valuable experiment of trying how an existing condition, which has been treated in a definite way, would develop if subjected to quite different treatment. One of the most special advantages of modern times has been the possession of this new world alongside of the old world, and the being able without any sudden interruption of historical development to realize the events and life-experiences passed through by men in that great arena of aspiring powers.

To this extension of the scene of economic activity, with its important results, the growth of physical science furnished the means necessary for the complete conquest of the new territory. Useful discoveries have been made in all ages, but there has not existed in all ages that activity of imagination to which any success attained immediately becomes a starting-point for

fresh undertakings; in ancient times and in the Middle Ages, the application of any newly discovered natural or artificial power was usually restricted to the immediate sphere of work which had given occasion for its discovery. It is different in our time. By experiment and calculation the principles and laws of action of forces have been arrived at in at least some departments of Nature; numerous observations have ascertained the various results produced by the action of these forces under arbitrarily established or altered conditions of their application; now every newly discovered material and every newly ascertained natural process is regarded from a variety of general standpoints and compared with a variety of recollections of what has been previously observed, and these not merely arouse but often forthwith give an answer to the question, What further advantage is to be gained by subjecting this new discovery to definite conditions or by combining it with known forces? Hence arise men's vigorous endeavours to follow out forthwith all the possible applications of a fresh discovery, and the frequent demand that definite instruments of progress (which are needed and from which are expected services which can be exactly specified) should be provided by searching out new chemical combinations, or new means for the composition of forces; and hence finally a knowledge of the hindrances which yet remain to be overcome in the accomplishment of a mechanical task, and of the direction which must be taken by any investigation which aims at removing these. These advantages depend upon the nature of our knowledge and the facility with which (thanks to the easy communication of thought) co-operative labour can be carried on; and they have not only conferred upon us an incomparably greater wealth of useful commodities than were possessed by men in ancient times and in the Middle Ages, but have also determined our mode of thought. Much which formerly seemed to us impossible we now regard as a mere matter of time; the combined energy of men applies itself to the most extensive undertakings with a calm prevision of success. This energy seeks not merely to transform the

inanimate world but also regards the animal kingdom as a constituent part of a universe of usable commodities, modifying the physical formation of animals by careful breeding for arbitrarily chosen ends, and thus feeling ever more and more supreme over Nature and ever more and more losing the remains of that awe with which even as late as the Middle Ages the mysterious characteristics of natural elements were regarded; men anticipating more results from the wondrous developments of these (which they ventured only timidly to initiate) than from their own well-calculated interference.

These considerations extend to the coherence of society with reference both to its internal consistence and to its connection with physical conditions The abundant and penetrating reflections of antiquity upon these questions were destitute on the one hand of a basis of observation wide as to both space and time, and on the other hand of the possibility of easily communicating the results attained. Statistical science with its characteristically developed methods of comparison is now able to utilize the rich material which the present owes to its greatly enlarged intellectual horizon, and the existing multifarious means of communication make its results the common property of much wider circles. Thus among the most characteristic features of modern times may be reckoned growing clearness and increasing extension of reflection concerning the foundations of the economic articulation of society, concerning the laws of exchange, and the connection of all human activity. If it were ever possible for the human mind to move on exclusively in a single direction, the injurious effects of the present preference for this region of thought would be developed still more plainly than they are. For taken alone it favours the disposition to regard all that happens as a mere example of general laws. It has a tendency to make man regard his own development, which had before seemed at least partly to be the work of his own free will, as the product of climate, of food, and of natural endowment, and the changes of these that take place according to natural law. In this connection of all things,

mechanically so clear, it is difficult to hold fast the thought of higher ideals, ideals which are entitled to require something other than that which the natural concatenation of causes and effects can of itself produce. In fact the flood of materialistic views with which we are inundated bears witness to this increasing disposition to leave to man no other destiny than care for his physical nature, development of the capacities of his kind, and the multiplication of those good things to the enjoyment of which this part of his being leads him. Thoughtful reflection also, which does not take such a narrow view, has succumbed to the temptation to regard social changes which seem to be forced on by natural conditions, as being justifiable simply because they are explicable; and to look on at the stream of circumstances with tacit acceptance of events that are accomplished, or are in course of being accomplished, approving every turn and eddy of that stream.

§ 5. The greatest part of the peculiar form assumed by the relations of labour in our times is due to the development of machinery. The infinitely numerous possible functions of the human hand in labour are found separated in machines, each individual function being attached to a mechanism which exists purposely for it, and each being on this account endowed with greater strength, staying power, and exactness. Antiquity possessed but few of these advantages; it had at best only tools, that is to say contrivances which do indeed by their construction and manner of use afford to human strength a more convenient hold of the objects upon which men work, but yet find the spring of their movement and action in the strength and skill of the human arm. It was the utilization of steam which first substituted for them, and that with ever increasing generality, machines the disposable force of which is developed not indeed from nothing, and just as little from a mere summation or transformation of human activity, but from the efficiency of elemental forces, machines merely providing for this efficiency the conditions of useful action; and even this work is facilitated by the progress of technical art. As from the beginning the earlier and coarser

tool helped to make a more delicate one, so it is machines themselves which make those parts of other machines that are difficult of construction; and it is machines themselves which, in part at least, changing their action according to the changing requirements of the work, counterbalance the injurious incidental effects which that action would otherwise entail.

The costliness of machinery and of keeping it going, generally speaking makes its employment profitable only in uninterrupted production on a large scale. As when the radius of a circle is increased, successive equal additions to its superficial extent are made with an ever decreasing proportional addition to its circumference: so with the same necessity in most kinds of labour, as the scale on which it is undertaken is increased, the increase of useful production exceeds in a growing ratio the increase of outlay; when reduplications of similar functions are performed by one instrument there is hardly needed an increase of the activity which it would have to devote to a single performance of the same function; most productions gain in perfection when their various separate parts are made by separate machinery which is devoted exclusively to them; and finally this division of labour, advantageous in itself, is facilitated by the unvarying exactitude of mechanical action, the uniformity of its productions making possible their subsequent combination into a whole.

The advantages hence arising for the products of labour and for their distribution have been as often extolled as the disadvantages connected with them have been lamented. It is without doubt due to the use of machinery in manufactures that there has been diffused among the people a great supply of the means of comfort and wellbeing which either were quite inaccessible to the civilisation of earlier times, or on account of the difficulty of procuring them were attainable only by a few. But this industry has already absorbed much which used to belong to art, and though the artistic element may not have been wholly banished from its uniform productions yet they are without the traces of that lively individual

imagination which is revealed in so many objects of ancient or mediæval workmanship—objects which one hand had with loving interest framed in every stage, from the raw material to the final form. It is now more difficult than it used to be to provide dwellings with harmonious furniture; it is the slight interest which we can feel in furniture that has been purchased and brought together from a variety of places, that makes us disregard the lack of coherent mental character in our customary surroundings. On the other hand, the cheapness of manufactures produced by machinery, as compared with those produced by that human skill which has now lost its value, is not so great as to allow of unpropertied persons participating with any degree of completeness in these new comforts and conveniences of life. In perfectly simple states of society, the various dispositions which even there have place appear side by side as if they all had an equal right to exist, just as the different kinds of animals, for none of which is it any reproof to be what it is; it is to a high degree of refinement, that there is first opposed as its antitype that coarseness which while it knows all the newly discovered and newly developed moral relations despises or misuses all of them. Just in the same way poverty of external appearance is no reproach, is often even picturesque, at a stage of civilisation in which men have but few needs and satisfy these in the most primitive and simple manner. On the other hand, this same poverty assumes the peculiar character of squalor when it appears in the midst of a society the life of which is based upon a very complicated and intricately branching system of satisfying human wants. Poverty, taking isolated and disconnected fragments from this system, becomes subject to wants which it has no assured permanent and adequate means of satisfying; and substitutes for previous frugal needs and occasional inventive sallies the awkward discomfort of surroundings which afford adequate satisfaction of needs only by fits and starts, and of an outward appearance of slovenliness. It is only in the south, with its mild climate, that there still remains any charm about the life of the majority; the vast and needy masses of the

civilised nations of the north pass their existence even now in such dwellings and under such conditions as to clothing and household furniture as must be hardly less repulsive than the hovels in which thousands of years ago oppressed Asiatics hid themselves away from their tyrants.

Still more unfavourable is the effect of the new forms of labour upon mental development. What was so much feared in ancient times, the narrowing of men's intellectual horizon by unintellectual occupations, threatens the mass of the people more and more as the division of labour goes on getting greater. Even in the division of manual labour in past times, many an employment constituted a fixed vocation which, if the matter had been settled by regard for untrammelled human development, must have been reckoned among the temporary occupations of household labour. But independent handicrafts generally embraced a plurality of cognate operations; it was possible for the labourer to accompany the various stages of elaboration undergone by raw material before attaining its final form, with continuous activity and a satisfactory sense of the progress and results of the work. The tool habitually used did indeed exercise an influence upon the bodily development, the demeanour, the character, and the sphere of thought of the workman; but yet he was not its slave: in every outline of the finished products he could, as it were, trace the strength and delicacy of his own formative touch. On the other hand, man's share in the work that is done by machinery is limited to very uniform manual operations which do not directly shape anything, but merely communicate to some mechanism which is not understood an uncomprehended impulse to some invisible operation. The completed product reaches the hands of the individual worker in a condition of which he did not witness the production, and passes out of his hands again to undergo further transformations which are brought about in a way equally obscure to him. Hence arises the worst possible division of labour — the separation of the sagacious invention and guidance which, with the increasing complication of machinery, requires ever increasing circum-

spection, from the unintelligent manipulation which is able to do without thought in proportion as all its difficulties are solved by others. For the only perfection which it is possible for such workers to develop—the formal one of exactitude without consciousness of the ends to be attained—is the very same virtue which is required from machinery itself. It is only unusual talent that can succeed in raising itself, under such unfavourable conditions and in entering the ranks of invention; for moderate capacities labour is no longer either enjoyment or a means of culture. And this injurious result cannot be counterbalanced by the compensation which intelligent benevolence seeks to provide for the labourer by giving him a larger allowance of leisure and better means of occupying it. He may have access given him to means of scientific culture, to instructive lectures, to refined pleasures—he may even be enabled to enjoy temporarily a luxury, which certainly may possibly be made accessible to him by a system of industry that depends upon enormous consumption; but all this does not alter the feeling which regards unintellectual work as a mere means to enjoyment, and having no sympathy or devotion for the work itself merely seeks to get it over in order to obtain its fruits. This lamentable division of life into labour and leisure that are opposed to one another as day and night, is at present undoubtedly progressing; when we boast, as one of the advantages of our own time, that all kinds of labour are now respected, this often means nothing more than that the attainment of means of enjoyment by any kind of effort is praised; it is not labour but its product that is sought; men undertake to bear for a fixed term of years the repulsive burden of this effort, which is destitute of mental interest, in order that then the remainder of their life, sharply marked off from this time of labour, may be spent in idle enjoyment.

The social relations, too, which depend on the division of labour, develop new and gloomy aspects. As long as production by hand-labour remains profitable, or in as far as trade is concerned with simple products the indispensable-

ness of which insures their sale, honest endeavour may maintain a modest independence, without having any great superabundance of intellect and capital. Wider knowledge of the connection which there is between the needs of extensive groups of countries, now makes it possible to anticipate demand to a much greater extent than formerly, the multiplied means of communication allow those products which can be cheaply supplied in large quantities to be easily got rid of, and the greatness of the resources employed makes it easier to weather the fluctuations of demand and exchange; in many cases the greater excellence and uniformity of things produced by machinery contribute to drive out hand labour. There are not a few handicrafts which from an independent production of commodities have come down to the mere finishing off and fitting together of manufactured goods; others no longer pursuing any trade of their own have to take a subordinate place as mere appendages of great businesses. The same conditions which in a general way make the combination of several different operations in one business more remunerative, have a specially powerful effect in concentrating mechanical industry in great manufactories, a system which, by its combination of mind and money, prevents mere faithful work from attaining independence. It is true that within short periods the machine worker is more sure of his wages; but whilst independent handicrafts depend upon the needs of a greater number of customers—a number which in a small trade is seldom altered suddenly—the existence of the machine worker depends partly upon the arbitrary choice and the insight of one person or of a few, and partly upon the fluctuations of universal demand and supply, which he can neither survey nor control. This insecurity is by no means counterbalanced by the sense that he participates in a great whole, for he participates neither in the insight nor in the gain, but almost exclusively in the dangers. Nor has he more cheering prospects as regards a gradual improvement of circumstances. His wages are mostly insufficient for the attainment of ultimate independence; and a change of occupa-

tion is impracticable for him; since, generally speaking, a man becomes thoroughly competent for any definite work only by long habituation, which unfits him for any other. It therefore seems to the machine-worker that the best condition of life attainable for him is soon reached, and that striving after something more serves only to lessen the enjoyment of the present; the impulse to frugality is extinguished, and early marriages (contracted because there is no prospect of any advantage being derived from delay, and because the children's capacity of labour can soon be turned to account) rapidly increase the number of industrial proletarians, all doomed to the same prospectless and improvident life. The humanity of the masters, which is often present and often absent, cannot remove these evils without changing the principle of division of labour; even a patriarchial relation between them and their subordinates would not produce a complete solution of the problem, since this could only be found in the re-establishment of an independence based upon men's own activity.

In another direction labour has broken through earlier restrictions, with much advantage and not without some disadvantage. Historical relations had made it necessary that infant guilds in order to prosper should have strong internal coherence and external inaccessibility. But altogether rash was the view (which in course of time developed from these beginnings) that all human labour falls into a limited number of classes with a regularity like that of the animal or vegetable kingdom, each of these classes having an exclusive right to a definite circle of employments. The growing-up of new kinds of work, which could not be fitted into this system, led to the removal of such limitations, and this has certainly opened a free field of labour to struggling powers which were before confined; but the benefits of this improvement are abridged by the general condition of things. As there is scarcely any business which may not possibly be carried on in manufactories, the powers which have been thus set free may also divide into the two classes of employers of labour and

dependent labourers. The possibility of going from one business to another may delay this result, but will also contribute to make men forget still more the idea of a calling and to dissolve the steadiness and security of ancient customs depending upon it; life will become a succession of disconnected attempts to fight one's way through somehow or other.

The present age has met these wants by a resource which promises much though not everything, namely by voluntary combinations for definite objects. As Assurance Companies they distribute among a number the unavoidable damage produced by natural causes, effecting this distribution as a judicious economic measure; as Joint-Stock Companies for carrying out undertakings which are beyond the power of individuals, they alone, combining self-interest with the common good, are able to succeed in works which can compare with the colossal undertakings of antiquity; they appear in innumerable other forms in order to combine the separate resources of individuals whose wants are similar by buying the materials for work wholesale, saving the useless cost of retailing, and affording to small capitals, by co-operation in trade, the same rate of profit which large capitals can obtain. Cheering experiences already testify to the value of the further development which this principle is capable of. Needy workmen combining their small savings into one capital stock, and thus being able to enter upon undertakings for the common benefit, have enlarged their modest associations into flourishing companies which afford to all participants the commercial advantages of business on a large scale. The united community of workers takes the place of the one employer, and the satisfaction of labour by wages regulated by the supply of unemployed labourers is transformed into a participation of the gain obtained by the industry of the society; the oppressive and demoralizing effects of the relations between the sole lord and his "hands" give way to the animating and moralizing power of the sympathy which the individual feels for the prosperity of the whole to which he belongs. Without recourse being had to express prohibitions, vices

of excess, which are not congenial to the spirit of these societies on the whole, seem to grow less of their own accord; they have manifested a vigorous impulse towards further cultivation by establishing educational institutions and seeking means of instruction; without State support and struggling against many obstacles, they have brought to their members an amount of gain which secures and improves their existence and their domestic life. It is hard to anticipate experience and to determine what capacity of further development these associations may have; what they have hitherto not afforded is the independence of individual callings, for all they do for the individual is to guarantee him a competency. The question is whether this ideal of family life, self-dependent, economically self-supporting and constituting in itself a complete sphere of activity, is capable of general attainment in our time, or whether it must not be sacrificed to the changed conditions of labour. It still exists on landed properties where the owner is the cultivator; but if the time of the steam-plough should come and its superiority should make necessary that cultivation on a large scale which alone is suited to steam agriculture, then many fields will be thrown into one, all the slight hollows will be filled up, all the slight elevations will be levelled, and though individual rights of property in the wide and fruitful plain thus created may continue, it will be handed over to the administration of select committees, from whom after the harvesting the owners will receive the produce or an account of it. The connection between man on the one hand, and Nature and the labour applied to natural objects on the other, will in this case as in others become ever less perceptible; the earth also will then be regarded as merely gain-producing, and not as the object of an industry that is carried on with self-sacrificing attachment.

The ties of neighbourhood already combine the inhabitants of a village or town to a community of interest in most of the affairs of life; and in the time when guilds flourished the association between their members was even stronger, and

extended to the whole of life and not merely to work alone, all modern associations have hitherto had the disadvantage of being combinations for isolated objects, none of which captivates and occupies the whole man. As the implement which a man uses lays claim to him altogether as it were, but machinery, on the contrary, works for him, so formerly a man's calling encompassed him as it were on every side, while his present relation to work is like that of machinery to it, no devotion being required from him, but only the punctual fulfilment of a small number of conditions. Formal virtues are abundantly developed; in the intercourse which is carried on in trade, by postal communication, by rail, in money exchanges, in credit, there is a stupendous reliance upon the trustworthiness of machinery that is withdrawn from all personal supervision and all individual influence, working for men as it were in the dark. What in ancient and mediæval times required a multiplicity of personal efforts, of emotional springs of action, of effectively calculated persuasion, of manifold manipulation, is now (with the least possible expenditure of excitement, with an economy that is sparing even of words) entrusted wholly to that machinery of communication which provides for all. But the more the real nature of business is understood and developed in conformity with its concept, the more are liking and personal devotion withdrawn from it. It is true that a great part of the good results which in earlier times resulted from this active participation is more advantageously obtained by the mode of business administration referred to; that by assurances, by a general system of poor-relief, and by the stimulation of intelligent self-interest, tasks which were formerly left to voluntary charity are to some extent lessened and to some extent more certainly fulfilled; but after all these departments of human activity have been made as far as possible mechanical, the question becomes more and more prominent, Where, then, as a matter of fact does life itself begin if all which formerly filled it up is removed from the sphere of living interest and reckoned as merely among the preparations for life and instruments of living?

Enjoyment of the leisure which remains after all necessary labour has been accomplished is hardly on the whole estimated very highly in our own age. It is an age which is well acquainted with the bitterness of toil, but knows little of joyous festivals. With the disappearance to so large an extent of trade guilds and status, old manners and traditional customs with all the complex formalities of public festivals and entertainments and all significant ceremonies of social intercourse have declined; and amid the general formlessness, men are at a loss what to do with the leisure they have obtained unless they either turn again to the labour which was to have been got rid of, or seek that sensuous enjoyment which is always to be had. Exhibitions are the only peculiarly modern entertainments of a public kind, and public dinners for political or other purposes are the means used to strengthen enthusiasm. Neither Church nor State supplies the lack of popular inventive power; the latter neither favours the political activity natural to good fellowship, nor does it readily allow the use of social solemnities in even such political action as it approves; and the Church by forbidding or disapproving natural impulses, abandons the imagination of the people to its own vacuity, without winning it to participation in the forms of worship and the enjoyment of genuine artistic beauty, by positive development of spiritual life.

Now if we take a comprehensive survey of these historical transformations, human life seems to be turned more and more into a struggle for existence; the multiplication of small wants, which is not accompanied by a proportionate increase in the ease with which they are satisfied, consumes a large share of the strength which might have been devoted to more ultimate ends, while the kind of labour required does not contain in itself its own reward or even a part of its reward. The place of *Work*, which was once a self-animating exercise of activity, is taken more and more by *Business*, that wonderful creation of society, that with its complicated connections and its natural laws which are independent of our will in a certain sense leads a life of its own, and reduces individuals to the

condition of its panting slaves. Great advances in insight, in discoveries, in new social constructions of all kinds serve on the one hand to give new strength to this monster, and on the other hand to give some security, against the inexorable course of its development, to that humanity which it has itself created; and we are accustomed to admire the one as well as the other. We regard with amazement and not without satisfaction the growth of those giant cities in which the nature of business gradually concentrates the population, and often forget under what joyless and revolting conditions of existence a large part of humanity is thus placed; we regard it as an advance when the tender strength of children is employed in useful labour, or there are opened to women spheres of work which secure to the increasing numbers of those who are unmarried the possibility of subsistence; and we do not enough consider that at the best these arrangements are but forced and wholly unnatural attempts to counterbalance serious evils which owe their existence to the progressive development of all the relations of life.

That the sociological order when left to itself is necessarily such we do not deny, and we think that those are in the right who hold that it is unpractical sentimentality to wish for a condition which cannot be brought back. But the remainder of the truth must also be told, which is that this course of things is not in itself a movement towards perfection. The innumerable individual steps of progress in knowledge and capability which have unquestionably been made as regards this production and management of external goods, have as yet by no means become combined so as to form a general advance in the happiness of life. For the growth of this happiness cannot be sought either in the mere multiplication and improvement of productions, or in the increasing bustle of industry, nor yet in the ingenuity that tries to maintain the same tolerable equilibrium between labour and wages under conditions that become ever more and more artificial and complicated. For this maintenance is the utmost that is accomplished. Each step of progress with the increase of strength

which it brings, brings also a corresponding increase of pressure; the more varied the ways are in which the individual elements that form the social system touch one another—their connections being now more tense than formerly—the more do they both gain by the union of their forces, and suffer from the disturbances of others and the inner repulsions of all. Hence we find that never has there existed in such a striking degree the inconsistency of holding that the whole life with which men are anxiously occupied and which they eagerly participate in, is not at bottom the true life, and of dreaming that there is another and a fairer that might be lived and will be lived as soon as the lower life gives us time, and opens a way of entrance to it.

Let us see now whether in the midst of this noise of external progress, this better life has been preserved, and perchance by its own advance towards perfection provided a compensation for the deficiencies which we have indicated.

# CHAPTER III.

## BEAUTY AND ART.

Art as an "Organism," and as the Expression of Human Feeling—Eastern Vastness—Hebrew Sublimity—Greek Beauty—Roman Elegance and Dignity—The Individuality and Fantasticalness of the Middle Ages—Romance—Beauty, Art, and Æstheticism in Modern Life.

§ 1. IT is no longer our custom to personify (as myth-constructing imagination once did) the various forms of mental activity which in the course of history have been devoted to the same supreme aims, aided by ever new and perhaps ever more perfect expedients. But after thinking we had discovered in their historical changes an ordered and constant progress, we found, in the name and the notion of *spiritual organisms*, a means of ascribing to them greater independence of existence and development than really belongs to them. Philosophy and the history of philosophy have long been spoken of as if they embraced not only the ever-recurring efforts of human thought to grasp the truth which is always equally valid, not only the series of philosophic views by which the human heart seeks to rise above the doubts and difficulties and distresses of life; rather it seemed as though in them truth itself experienced a development of its own existence and content and validity, like the growth of a plant which is indeed tended and cultivated by our care and attention, but yet unfolds beneath our touch according to its own immutable law of development. Of the sphere of art, too, we are now accustomed to speak as if it were a mysterious region of enchantment, having indeed its place in our life, and yet separated from life, accessible to few, working in the service of eternal beauty according to laws and order of its own, holding together its various productions in a complete and isolated system, and governed, as to its history in time,

by an innate law of development. We do not wholly dispute the justice of such a conception, nor the good results which it has had in deepening men's appreciation of all beauty; but the few considerations which we are now about to offer are not directed to this organism of art, for the development of which according to its own laws the living passion of nations can serve but as nutritive sap. On the contrary, our discussion is only concerned with the varying attempts of men to make clear to themselves the mood which governed them, and the peculiar feeling awakened in them by existing conditions, by impressing the image of that beauty which had most taken hold of their minds upon everything that they did and experienced, both upon the character of everyday intercourse and upon works which were intended to remain as lasting monuments. As far as posterity is concerned, it is commonly the constructions of art which afford the most evident testimony with regard to this æsthetic life of the past; to the men of any age the works of art of that age are but one and that not always the most expressive of its manifestations; for their production and their greatness depend upon the number of creative and constructive minds, and these, in consequence of some dispensation which is to us inscrutable, are not distributed equally to all ages. But even such minds cannot collect scattered rays if these are as yet non-existent; and the appearance of such minds presupposes that men in general are in tune for that aspect of beauty to which they are called upon to give form and expression. Therefore where great artists are wanting, and consequently the dreamy mood of appreciativeness is not suddenly awakened to a clear consciousness of the ideal, there the slow working of this less creative impulse produces æsthetically expressive developments of life.

§ 2. The most ancient nations of the East found beauty chiefly in what was vast. They may also, it is true, have been not without appreciation of tenderness and grace, an appreciation of which we have no testimony owing to the destruction of their literature; but even Indian fancy, which exhibits this feeling in a striking degree in such of its poetry as is still

extant, has an even greater preference for what is vast and unmeasured. This ancient world was pervaded by reverence for what is colossal; tradition pointed to immeasurable distances of past time; its constructions towered to the skies, and extended over the surface of the earth, or penetrated subterranean depths to an extent vastly beyond what might have been expected from human powers, or what could be required for human needs; sculptured figures of more than life size, and in large groups, looked down from their pedestals in mart and street upon busy commerce, which was struggling to assume equally vast proportions; civilised countries were populated by enormous multitudes; armies countless in number were at the beck of conquerers, whose desires never stopped short of universal monarchy; rulers, exalted above the rest of the world by mysterious magnificence, became intoxicated with a sense of their own divinity, and found nothing worthy of being entrusted with the records of their conquests except the hard and rocky tablets supplied by mountains that towered high above the plains.

The impression of grandeur which the ruins of this bygone world still make upon our mind, convinces us that its creations were the result of genuinely æsthetic thought, which not only covered its incapacity of estimating real beauty by an exaggeration of external proportions, but undoubtedly found in mere magnitude a one-sided but true expression of beauty. The transitoriness of all that is human, and the swiftness with which it passes out of sight, disappearing in the immeasurable background of Nature, must have struck early civilisation more sharply and hopelessly than it did a later age, which can look back to a transmitted world of complex thought created by human effort, it seems as though men's minds had sought to alleviate this secret dissatisfaction by the greater boldness with which they carried all images and monuments of human life to such a magnitude as to entirely remove them from any measurement by the standards hitherto accepted in different stages of civilisation. The colossal constructions of the Egyptians seemed to force their way into the ranks of natura

objects of vast dimensions, as though they had been rivals of equal birth. As year after year they looked down undisturbed upon the inundations of the Nile, and the moving billows of desert sand, they inspired the beholder with a sense of the unending durableness with which the human race fills the ages; religious worship—honouring the dead and ever mindful of the possible return of their souls to earth with a far-sightedness which was regardless of the flight of time, kept up this feeling—a feeling aroused by contemplating the native works of art, and by which these works of art had themselves been produced. If one element in all beauty is an immediate certainty of the dominion of spiritual life over unconscious Nature, the manifestation of that life being inevitably connected with unconscious natural instruments, those ancient nations have given to this thought its simplest expression; they have sought above all things to represent the fact of the conquest of Nature by the living Mind; and whilst they revelled in what was vast, and yet by no means always in what was without beauty of form, they made for themselves as it were space and breathing room in which, relieved from the pressure which all finite reality encounters, they might breathe freely with a sense of their own imperishableness. How much they attained in this way we know not; for no tradition of their mental life has come down to us. It is only the writers of the Old Testament who tell us of the unbridled licence of the kingdoms of Western Asia, in which the life of pleasure flowed in fierce and mighty waves; the monument of Sardanapalus, with its inscription—*Eat, drink, and love, for all else is but little worth*—seems to be the melancholy conclusion of this age, which in its struggles towards what was great was able indeed to assure itself of the strength and imperishableness of the race, but had failed to find for the individual any eternal content of life, and had, on the contrary, even minified that content by comparison with the colossal magnitude of works constructed by human hands.

It is only the Hebrew people who have left us speaking monuments of their early mental life. They must have

possessed an abundant literature besides the writings which are now collected in the Old Testament; but judging by the indications contained in these, those which are lost to us may have been essentially similar to those which we still possess. We know nothing about whether this nation had an inclination for scientific investigation; their language is not formed so as to subserve this end, nor is it fitted to be the instrument of a many-sided intercourse which makes it possible to occupy a variety of points of view. Not that there can be in the original capacity of a language or in the principles of its construction an insurmountable obstacle to the development of any one side of mental life; but the condition of a language at any time shows the direction which that mental life has hitherto not taken, and in which consequently it has neglected to develop the means of communication. The Hebrew language of the Old Testament, with its small number of words for abstract ideas, and its great simplicity of construction, is favourable neither to scientific investigation nor to intellectual conversation; but it is in an equal degree more fitted for the most faithful delineation of the ever-recurring fundamental characteristics of human life, and for the majestic expression of divine sublimity. A variety of points of view which have been thought out and are well under command generally diminish men's receptivity for both of these, or at any rate their capacity for representing them; with regard to both the Hebrew histories and hymns are imperishable models. The treasures of classic culture are open to but few, but from that Eastern fountain countless multitudes of men have for centuries gone on drawing ennobling consolation in misery, judicious doctrines of practical wisdom, and warm enthusiasm for all that is exalted, so that mankind has become accustomed to see in the characters of those most ancient stories and their destinies, embodied exemplars of human life and of the different characters which the variety of circumstances develops.

Here popular imagination is no longer directed to what is vast, but strains after a *sublimity* that stands in need neither of vastness nor of ornamentation. Thus the descriptive

poetry of the Hebrews depicts characters and events with the greatest simplicity of expression, without the least artificial complication of motives, disclosing everywhere without reserve those natural springs of action which as long as the world lasts will be the real ultimate incentives of all that men do, however ingenious may be the mask thrown over their actions by the civilisation of any age. These representations do not employ even the figurative expressions with which Greek epic poetry incidentally adorns the objects of which it treats, in order to adapt them to the generally elevated tone of the description; on the contrary, their characters impress us with their sublimity by appearing before us without any adornment, in transparent naturalness, as though there were nothing in the world which could call in question man's right to be what he is, and to know that he, as he is, is the ultimate object of terrestrial creation. Their lyric poetry repeats the same sublimity, only after another fashion; that upon which this depended in their historical writings appears here still more obviously. Here the mind dwells upon its communion with God, and extols with all the power of the most passionate expression, as proof of divine omnipotence, every deeply-felt individual feature of cosmic beauty. For among the divine attributes it is certainly omnipotence which above all is felt, and gives a colouring to æsthetic imagination; we do indeed meet with innumerable pictures of Nature which taken separately have often that inimitable beauty and charm which civilisation, entangled by a thousand unessential accessories of thought, finds it so difficult to attain; but these pictures are not utilized for the development of a progressive course of thought, but merely juxtaposed as though to magnify from different but corresponding sides the omnipresent influence of that divine activity which they depict.

The earnestness of this religious bias of mind towards sublimity did certainly pervade life, but could not endow it with harmonious and many-sided beauty. The thousand petty cares to which notwithstanding their unimportance cheerful

attention must be vouchsafed were too far below the soaring flight of this enthusiasm to be efficiently pervaded by it. The regulation of life continued to be left not to unfettered imagination but to instructive deductions from the great principle of religious belief; they filled it not with beauty but with ceremonies and deeds of the law which by connecting the smallest things directly with the greatest enabled the Hebrew people always to maintain, in their highest moods, the loftiness of character distinctive of them, but secured no uniform grace to existence as a whole, during the less exalted moments of relaxed tension.

§ 3. To what admirable richness and flexibility the mental life of the Greeks had developed at a very early period is most impressively shown by their language. In saying this I am referring neither to its wealth of grammatical forms, nor to its euphoniousness; both make a language interesting, but do not show the greatness of those who use it. On the contrary, as at the period of greatest strength in animals, various parts of their bodies have been pushed out of place or have coalesced or wasted away—the body, which does not for a long while attain the fulness of living strength, having at an earlier period possessed these parts clearly marked out in significant symmetry and filled with vital activity—so in order to obtain a perfectly flexible instrument of mental life, the symmetrical body of language must have its bones to some extent displaced and its joints somewhat stretched; and the influence of mental progress is shown in it chiefly by phænomena which concern the dissolution of its earlier structure. How many moods and cases may have continued in existence matters very little; moods and cases cannot suffice for the expression of all possible relations; but to increase them so as to cover most requirements is not in itself a nobler principle for the construction of language than the principle to which in the last resort recourse is always had when there is increasing demand for delicacy of expression—I refer to the independent indication of relations by separate words. That in this respect the Greek language

reached a high degree of perfection is a trite remark; its particles have always been admired. By their aid language could reproduce not only the essential content of thought but also the shades of the speaker's mood; the sense of artificiality which perhaps in the dawn of civilisation accompanies every systematic recital and makes the more ceremonious form of verse seem most natural was, by help of these particles, replaced by a sense of easy communication; just as in the sculptures of the Parthenon perfected art resolves the early stiffness of merely symbolic representation into the gracious ease of perfect beauty.

In all these respects the language of Homer holds a most happy medium between primitive unpliableness and later artificiality. In its copiously used conjunctions and prepositions we are made aware that the poet drew directly from a wealth of those temporal and spatial intuitions whence all languages derive their expressions for inner relations. Its structure of sentences connects thoughts paratactically without the hypotactic complications which later became customary, and continued to be intelligible to the quick ear of the classical nations without being in any striking degree a type of lucid discourse. If in this respect the language of Homer is language in its youth, yet its impression on the whole is decisively that of a language in which it was no new thing for human beings to be spoken of with human feeling. It was only after having been used for a considerable time in the intercourse of a people vividly awake to all the interests of life, that it could have attained such a degree of freedom in the expression of thought; the metrical form itself must have been preceded by abundant practice in similar composition before its perfect harmony between the form of expression, the train of ideas, and the rhythm could have been produced.

But disregarding this merely lingual aspect, Homeric discourse, considered simply as discourse, bears witness to the early attainment of a high degree of human cultivation. The Homeric heroes speak much and willingly, and know nothing of the fierceness of dumb encounter with which barbaric

energy does but hide its awkward incapacity of setting its own thoughts in order, and its still greater clumsiness in expressing and justifying them. We see everywhere that habit of understanding things which makes men seek for reasons; Homeric men had long ago learnt how to converse with one another, and developed their natural reflections simply and fluently, not always confining themselves to the matter immediately in hand, but using comparisons and maxims which one feels to have proverbial weight, referring to a common social treasure of practical wisdom which had been for a considerable time in their possession. In this respect the heroic poetry of the Germans produces a different impression; the spiritual depth which we admire in it lacks facility of expression. The undeveloped structure of sentences; the meagre explanation of feelings and resolves, to the mere statement of which the discourse often confines itself; the occasional obscurity of the course of thought which yet seldom wanders from the immediate subject of discussion—all these indicate a stage of civilisation in which social intercourse is but little developed. This unadorned conjunction of occurrences and actions between which we may in imagination interpolate unspoken mental agitation, is sometimes favourable to the loftiness of poetic representation; but since life does not consist of a continuous chain of adventures and great deeds, the cheerful interest shown by Greek writers in all intermediate circumstances testifies to greater progress in general tolerant regard for and treatment of the small and apparently insignificant elements of life.

And the Greeks knew what a treasure they had in their language. When their poets glance at the history of human development, they do not omit to extol the endowment of speech as a great gift of the gods; to be able to express himself is the distinctive characteristic of man; to understand things by their causes, and to guide men's souls by eloquence, is a fundamental thought of their later development. Homer can say nothing more bitter of the rude Cyclops than that they neither held markets nor had courts of justice, and that no man troubled himself about his fellows. For the Greek

all the real beauty of life arose from the most intense reciprocal action of mental powers in society; unburdened by transmitted science, and troubling themselves little about the knowledge of foreign nations, this dialectic people could attribute an importance to skill in the art of speaking which no later and dissimilar periods could honestly do, although even here unintelligent imitation has not been wanting.

The effect of this mental disposition, which so early turned to the observation and cultivation of human powers, expecting everything from their development, was shown even in the attitude of the Greek mind towards Nature. The penetrating glance of the Greeks could not fail to perceive either the beauty of their country or the significant characteristics of physical Nature, which in mysterious symbolism reflect spiritual life and its vicissitudes; even their mythology makes natural phænomena the background and source of religious thought in the broadest and fullest way; their poetry, by its wealth of clearly drawn comparisons, convinces us of the impression which the peculiarities of natural scenery made upon them, in an incidental sort of way; the very situation of their cities and places of assembly, theatres, and circuses, show how they felt the value of fine and beautiful natural surroundings, and wide prospects. But Nature affected them chiefly as the setting of their own lives, and they sought its beauty in the enjoyment of the mood which it produces in us, and regarded its productions as means of our refreshment and amusement rather than sought to live in sympathy with the mysterious life of Nature itself. It seemed to them, when all was said, that flowers had greater value as a wreath around some man's head than on the stalk where they bloom in solitude; and the saying that Plato puts into the mouth of Socrates—that men taught him, but that trees taught him not — certainly expresses the universal Greek feeling that the value of human society is far above any absorption in the beauty of Nature. Neither painting nor poetry showed much favour to the beauty of landscape; where the delineation of natural scenery can throw light upon men's feelings, we see all the poets, from Homer

downwards, able to delineate it in a masterly way with a few impressive touches; but it would have been nothing to them unless the enjoyment of some beholder had supplied the final life-giving condition. The words with which Homer concludes his description of a starry night in his wonderfully beautiful and striking way—*And from his heart the shepherd doth rejoice*—give the unchanging keynote of the Greek temper, which not only regarded all the glory of the heavens as merely revolving round the stationary earth, but also held that all the good things of earth were destined only for the adornment of human existence.

But all the more perfectly on this account did the Greeks make a real home of the earth, which was to them merely the stage on which was played the drama of human life. In this they were favoured by the situation of their country. If they had been buried in a primeval forest, without ever being able to take a comprehensive view of the situations of adjacent places, their sagacity would have developed in other directions; it is probable that if they had never been able to take wide and comprehensive views in the visible world, they would never have been able to do so in the world of thought. But where, on the contrary, a bright, clear atmosphere reveals immeasurable distances, where the eye reaches from coast to coast, where the view from a mountain-top embraces seas and the straits (flowing between promontories) which unite them, and numerous human settlements along the shores—there alone does it seem as though the light of heaven really fulfilled its end, illuminating all parts of the world with the lucidity which can result only from showing the connection existing between them. A susceptible race of men could not dwell from their youth up amid such a breadth and wealth of bright and varied scenes without having the sense of spatial order sharpened, and with it the feeling for clearness and intelligibility of all kinds. Even in the Homeric songs we are surprised by the precision of geographic knowledge as long as the scene of the story is laid in regions which at that time we know to have been within the reach of navigation. There is

hardly a town which is not brought before us as a familiar locality by some permanent characteristic of its situation—it is on the sea, or in a valley watered by some river, or on a rocky promontory; the routes of travellers are described with a distinctness which teaches us that even then commerce had established permanent paths, and that the sea-roads were familiarly known. The world which presented itself to the Greeks was different from the inland forest-covered regions known to our forefathers; the Rhine and the Danube flow through the world of the Nibelungenlied like two isolated threads of silver, in the neighbourhood of which there is light; but if any warlike expedition takes the heroes of the song to a distance from these, indistinctness of geographical knowledge closes like trackless night around them.

And finally, the Greeks were, from an intellectual point of view, in full possession of this country with the physical features of which they were so well acquainted. With every locality that was marked out in any way, tradition had connected stories of the gods and heroes, and had made them sacred; and to these their stirring historical life soon joined the remembrance of great deeds performed by mortals. Thus they were one with their country, and found satisfaction in the soil itself; what lay beyond the limits of their native land did indeed rouse a spirit of acquisitive enterprise, but did not disturb their æsthetic imagination; the abode of the gods was still within their reach upon Olympus, which was not beyond the boundary of their horizon, and at the extreme limit of which lay the entrance to the nether world; all beyond might continue a chaos, peopled with fabulous beings by which their native country was surrounded as by an ornamental framework without order or significance. The Hebrews were the only other nation that attained to anything like a similar conception; the smallness of their country, the never-forgotten connection of their tribes, the oneness of their sacred traditions, shed upon Palestine too, that charm of an historic light in which numerous coexistent points stand out in the distinctness of their reciprocal relations.

A great part of the charm exercised upon us by pictures of ancient life depends upon the favour of Nature, which still endows the southern countries of our continent with a joyousness of life to which the north can never attain. In their mild climate, which did not require that man should be shut off from Nature, the Greeks who, to begin with, were a finely-made race, learnt to regard nobility of form, dignity of carriage, and grace of movement as among the good things of life and the ends of education, in addition to that bodily strength and vigour the cultivation of which is common to all early civilisations. It is superfluous to praise what is admirable in all this, and useless to investigate how far the reality corresponded to the pictures drawn by partial fancy when it peoples every rood of Greek soil with living forms of statuesque beauty. The native poets with their love of satire have taken care to leave behind them testimonies of the frequent occurrence of ugliness and awkwardness. But these do not alter our general impression; the Greeks present to all succeeding ages exemplars of human beauty; and probably as long as the world lasts the Spartans at Thermopylæ, the Athenians at Marathon and Salamis, the death of Socrates, and the kingly figure of Alexander the Great will continue to be celebrated as classic examples of self-sacrifice, of heroic courage, and of the spirit of enterprise. Not that other times have not produced numerous examples of similar deeds performed to some extent from nobler motives; but nowhere, except in Greek life, has the intrinsic worth of the action been so perfectly manifested with a simple beauty which does not need that imagination should separate from it any perverse strangeness of exterior circumstance before enjoying the essence.

Such an artistic form had already been given to life when art, reaching the period of its greatest perfection almost simultaneously with the fulness of political maturity, gathered up as it were this living beauty, and reflected it back again upon life. My intention is not to sketch here, even in outline, its magnificent development; it is sufficient to indicate what art was in relation to life.

Among the greatest and most attractive characteristics of the Greek mind was that mobility of fancy which can become absorbed in the intrinsic worth of any phænomenon, and which, while it did not bring with it any permanent bias of disposition, could sympathize with and accommodate itself to the changing nature of objects and of events. Yet this characteristic has a limit—not only that limit which is in itself a glory, the indefinable but perfectly distinct character which marks out the most varied productions of Greek art as having a common national stamp—but also another and different limit, which it would be idle to blame and perverse to imitate. That is, it was not really the intrinsic worth of things which the Greeks sought; everything was of value to them only in as far as it could be made instrumental to human development. Everything which could be utilized to produce a perfectly harmonious constitution of man's whole mental and physical nature, everything which could be permanently expressed in this constitution, or could through it receive some fresh manifestation, aroused their artistic imitative sympathy; they were much less inclined to that which in its overpowering profundity and incalculableness left no alternative but contemplative subjection and submission.

We do not know their music, a fortunate circumstance which has left room for modern times to become great in this one art at least; but according to all that their authors have said on the subject, it was measure and harmony that they principally esteemed in music; they considered that those were the elements which one might expect to exercise a useful influence upon the temperament, disposition, and whole conscious life of man, the improved mental condition thus induced expressing itself in gesture, carriage, and action. Hence nothing was more natural than the close connection of ancient music with dancing; the graceful and objectless movement of the limbs in the dance was the simplest and most sensuous expression and proof of the fact that the beauty felt in musical sound was not overpowering to human nature, but that on the contrary man could appropriate music as having

special affinity with his own nature, and could reproduce it by the help of bodily organs. With regard to the development of any melody, this capacity does not count for much; the connection between successive phrases in a really beautiful musical composition carries us away from the well-known and familiar forms of our own existence into the wide ocean of a universal life in which all individual forms are dissolved; isolated turns and phrases may indeed charm by reminding us that even this beauty of sound is not wholly incapable of being reflected in human life; but taking it as a whole, we find that we have no choice but to give ourselves up to it with unreserved self-surrender; the agitation which it arouses may pass off in tears, but the content of this agitation cannot be presented in tangible form. Either this open sea of universality to which music leads us was avoided by the Greeks, or the error of venturing upon it was disapproved of by their æsthetes. The extremely meagre thoughts concerning music which are expressed with singular unanimity by their philosophers make it seem improbable that any striking degree of beauty had been developed in the actual practice of the art; on the contrary, the fashion in which (in the same matter-of-fact way in which one would draw up a catalogue of the most familiar objects) they set down definite mental conditions as effects which might always be expected to be produced by definite styles of melody, or hoped by State regulation of the kind of music to be cultivated, to establish a disposition favourable to the existing constitution—all this indicates that poverty of artistic content which commonly tries to make up for its deficiencies by doctrinaire over-estimation, analysis, and interpretation of that which has been attained.

Little has remained to us of all the wealth of song which Greece possessed. We have express testimony of that which we might have guessed—namely that among the ancient Greeks, as among all other nations, mothers sang lullabies to their little ones, and sailors lightened their toilsome rowing, and shepherd and peasant shortened the lingering hours with

song; but this popular poesy has not been transmitted to us. The kind of Greek song which we know and which is framed according to the rules of art, presents two peculiar features. One is a predilection for the picturesque presentation of events which are set before us like a succession of living pictures, not with epic detail but effectively condensed; not so much related as brought into sudden relief by masterly delineation of the main outlines; not presented with the measured symmetry of epic verse, but seeking appropriate living expression in passionate rhythm. The inclination to make fable prominent may have a deeply-rooted cause in the fact that all human thought and action and life and suffering seemed incapable of being a worthy subject of poetry unless it had types and likenesses in the Olympian world and in mythology from which poetic imagery was ordinarily borrowed; on the other hand, it was no doubt a liking for plastic sensible phænomena which led Greek fancy not to linger in immediate contemplation of the content of feeling, but to illustrate it indirectly by looking at living examples. The other characteristic is the habit of storing up the outcome of poetic excitement in some general proposition or some proverb of practical wisdom—and thus in this way, too, taking refuge from the agitation of emotion in the definiteness and calm of a general conviction. It is difficult to estimate impartially this gnomic element, which in Pindar and in the choruses of the tragic poets continually alternates with graphic historic pictures. There is no doubt deep meaning in the trite expressions and commonplaces with which in practice we often try to brace ourselves in joy and sorrow; they could not have become commonplaces if they did not include something which, rightly understood, would suffice to completely calm our agitation. Now if the poet insensibly guides us in such a way that, as through a rift in a cloud, the content (still existent) of reflection which has thus grown into habit, suddenly appears to us in all its original heartfelt meaning, he will produce the finest possible effect by words and thoughts which in their insignificance seem to the uninitiated to be the

most commonplace on earth. We not unfrequently meet this lofty and earnest beauty in the songs of Pindar and the tragic poets; but sometimes only its external form is present, and poesy hovers about the line beyond which what is really prose becomes almost exalted into poetry by the solemnity with which it gives itself out as such. Greek lyric poetry moving thus between the two poles of gorgeous historic painting and impressive admonition, does not exhibit much of the true spirit of song. In the numerous remains of this lyric poetry which we possess, we hear many a tone sweet or beautiful or passionate or intense, but that which is expressed in them is the mere human beauty of man's nature. All the charm and tenderness and graceful dignity exhibited by favourable specimens of the race—especially in as far as all this finds sensuous expression in gesture and demeanour—exercised a strong influence upon the Greek mind, and was apprehended and imitated by their artistic imagination. But this imagination does not reveal to us the unfathomable depths of the individual soul, and the incalculable fashion in which it apprehends the world.

To illustrate some universal truth of practical experience by reference to great examples was the task undertaken by the Greek drama also, and beside this task the full delineation of human character and of the special justice which brings to each his own peculiar and appropriate doom falls noticeably into the background. As mythology had once for all set out the meaning of the heroic characters in the large firm outlines which the nature of the case demanded, the drama, without any great liking for mythology, borrowed from it, in order to elaborate into characteristic individual forms these general sketches of human dispositions and destinies. This can hardly be denied unless we apply different standards to old and to new; trying in the first case with microscopic acuteness of vision to *prove* by instances the beauty of works of art, and reserving for modern art an inexorable appeal to the immediate impression produced, which alone is competent to decide how far the beauty that has been proved to exist is æsthetically

effective. As regards the influence of art upon life, which is what we are here considering, this peculiarity of the Greek drama was an advantage. The subtle psychological analysis and delineation which in the masterpieces of modern dramatic art seeks to dive into the innermost recesses of the human heart, can never hope to be universally understood, nor even to meet, in narrower circles, with uniform and harmonious comprehension; but antiquity, ignoring those inexhaustible depths and taking characters that all could understand, depicted the destinies of mankind with broad firm strokes which found appreciative comprehension in the living sympathy of the people. And it did this all the more because both subject and mode of treatment were determined by ancient custom; the poet was not at liberty either to find his heroes in any obscure corner of the world, or to make any strangeness of his own humour the keynote of his representation. The fact that the persons of tragedy were always taken from the circle of native heroes; the repetition of the same story by various authors; the maintenance of the national philosophic views which yet allowed the special qualities of individual poets to make themselves felt—all this had a steady educative influence upon the people, and led it by a definite series of æsthetic presentations, without confusing multiplicity, to a capacity of judgment which has never since been so widely diffused as it was then at Athens.

Among the arts that deal with form, painting seems to have had least influence upon the national life, great as may have been the height of artistic development to which it had attained; of infinitely more importance was the constant sight of the noble and ideal forms which Greek sculpture, with a masterly perfection which has never since been reached, set before the eyes of the people. Having developed to this degree, the art of sculpture busied itself about the most insignificant as well as the most important tasks. To us, who admire the isolated remains, the thought expressed by many an ancient work of art seems to be too slight in comparison with the labour expended in presenting it in

sculpture; but such works were then intended to serve as fitting adornments of edifices the most insignificant details of which were pervaded by a coherent idea of harmonious beauty of form, and within the walls of which there paced figures whose costume, ornaments, and gesture seemed like the living embodiment of the same idea. And from what was finest and most beautiful in this world of art the people were not excluded; traditional custom turned the attention of creative art to the temples, the places of public congregation; for the private dwellings of citizens more modest adornment was thought sufficient. In those places which the nation regarded as sacred, in those festivals in the arrangement of which no other nation has come up to the Greeks, life was more thoroughly pervaded by all the splendour of art than it has been in any other age; the statues of the gods seemed to live among their worshippers; music and dance appeared to be the natural expression of the mood aroused by the words of the sacred songs, and in looking on at theatrical representations the excitement of feeling passed into a more calm contemplation of human destinies, a mental condition permanently raised above the commonplaces of daily life. And the Greeks thus lived and moved, and as it were had their being in beauty, without that deification of art which is so common in our time; they did indeed deify beauty, but not the human activity by which it was produced. They did not even possess any word by which art might be essentially distinguished from any handicraft skill; so self-evident did it seem to them that every free-born soul is capable of appreciating beauty, and needs for producing beauty no more mysterious endowment than that which in every kind of occupation distinguishes productive from receptive talent.

§ 4. When the languages of the Greeks and Romans, respectively, are compared, that of the latter seems the less flexible. If the Greek language forms its words in such a way that each may be connected without break with those that precede and follow, Latin seems to be animated by an

almost directly contrary endeavour. The vowel endings are less numerous, the frequent inflexional terminations in *t*, *m*, and *nt* necessitate slower enunciation owing to their incapacity of blending with most words that begin with mutes, and give the impression of a sort of individual reserve with which each word excludes its neighbour in self-contained isolation. And the vowel changes have a more impressive effect, since the phonic system of the Romans contains a smaller number of differences and these more sharply contrasted, and there are lacking many intermediate sounds which give gradations of light and shade to Greek speech. The Romans gave up the article; each word appears as a solid and independent whole without this prop; the conjugations have fewer forms, and the declensions are only apparently fuller because of their having retained the ablative. For as compared with the Greek determination by prepositions, which the Romans neither used so much nor possessed in such abundance, the ablative hardly does more than indicate the existence of some relation, leaving it to the hearer to guess, within wide limits, the more definite nature of that relation. The language is still poorer in those particles so frequently used in Greek to indicate the subtle contrasts, connections, limitations, and links between the different ideas of the speaker, the expression of which contributes little towards the communication of matter of fact, but helps greatly to make clear the mood and the subjective view of the communicator. Hence, as compared with the soft drapery of Greek speech which revealed the most trifling modifications of thought, the Latin language has a sterner aspect; it groups together more simply and concisely the items of fact, expecting the hearer to add that which is unexpressed. And yet this mode of speech is not less expressive and impressive, producing its effect by the position of the words, the peculiar construction of sentences, and even by the omission of expressions which might have been expected. The gestures which in other cases are an accompaniment of speech, and can make clear the meaning of the most imperfect language,

are here contained, in a certain fashion, in the very structure of the sentences; these characteristic forms of construction supplement the meagre melody of speech as with a clear harmonious accompaniment, and produce the impression of that stern pomp and suppressed passion, which in the Latin language always invite the reader to declaim, and give the hearer the idea of a life full of power, and using its splendid resources with calm mastery.

It is customary to estimate at a low value the artistic endowment of the Romans as compared with that of the Greeks. Without disputing this judgment, which is well founded, we must yet attribute to that which they accomplished (in harmony with the genius of their language) in this department also, an historical significance which, though different in kind from that which appertains to the art of the Greek nation, is hardly less important. The Greeks made up in clearness of perception and in constructive power what their imagination perhaps lacked in warmth and intensity of feeling. As no living expression, no hidden excellence of proportion in the human form, and no beauty of attitude in the living subject was neglected by the sculptor's art among the Greeks, so their poetry with lucid freshness reflected all the habits of mental life, as well as external occurrences. It could enter into any circumstances with a flexible sympathy which enabled it to represent how these circumstances would affect the generality of men; it reproduced with the characteristic colouring every feeling of pain or happiness commonly resulting from the experiences of life in the human mind; it never lost itself amid those obscure movements of distinctively individual emotion, which as they are to one mind inevitable are to another unintelligible; it is nowhere disturbed by an intense longing to reach beyond life as it is, to a higher peace—to a sacred joy in life and an unforced equanimity in the contemplation of it.

The mind of the Romans seems to have been differently constituted. More phlegmatic, and with less airiness of imagination, they could less easily be satisfied by the many-

hued brightness of life, behind which their religious belief discerned a network of obscure connections between things—enigmatical relations which were the more oppressive to human life since no glory of redeeming beauty was shed upon them (as it was in the case of the Greeks) by a circle of divinities who were to them as living realities, and from whose human-like customs these connections of things might become intelligible. Also in social intercourse the Romans exhibited a greater sense of their own individual personality and of the mysteriousness of alien personality; the Greeks felt themselves and regarded each other far more as mere specimens of their kind, whose ambition might intelligibly be directed to superior excellence in performances which might be severally compared, but not to the attainment of something unique in the individual. Thus there arose among the Romans that reflective turn which obtained for their poetry, in the judgment of modern nations, a preference over the colder and more objective repose of Greek poetry which it did not quite deserve. For the greater warmth of their reflective and contemplative imagination lacked that power of artistic construction of which it required a specially large measure. Now if to a soul that is passionately stirred it is as unsatisfying to take things simply as they are, as it is impossible to fashion the restless content of the mind to the calm beauty of a nature not its own, there remains no alternative but voluntary renunciation—such as seeks to secure to the soul that stands opposed to things a dignified composure and an unchanging demeanour, by warding off all disturbances from without and all outbreaks from within that might interfere with the braced and steady calm of manly firmness. This path of self-suppression was taken by the Romans, and it led them to the development of a style of æsthetic representation which has permanent historic value.

Unceremonious communication is not generally carefully precise in expression; the order in which we give utterance to our thoughts concerning the connection of things is not

always in correspondence with those thoughts themselves, for sudden stirrings of emotion hurry on our words in advance of the natural development of the subject, or force them back to a point which they ought to have passed. Greek speech abounds in such incoherences and looseness, of which the syntactic justification is often as difficult as the psychological justification is easy, and which in facile superabundance and in alternate sudden breaks and awkward additions reproduce the natural and often charming irregularity of living speech. The Latin style of expression is constructed with much more conscious design, and even where it imitates Greek models it does not simply follow the course of thought, but (aiming at orderliness and a completeness which gives due prominence to each essential relation, and omits what is unessential) compresses the really important content in fixed and regular structural forms. Every other and perhaps every higher æsthetic superiority may belong to the Greek style, but the Roman style aims much more than it at an ideal of Correctness. It is pervaded by the sense of an intrinsic order in all things which may be made the subject of communication; without entering into the variety of their nature with pliant imitative fancy, it seems under an obligation to observe with regard to them general forms of order, which guarantee to their content, as it were, distant respect without slavish submission, and at the same time secure this respect from being violated by subjective caprice.

In the practice of art among the Romans, this characteristic is repeated under a variety of aspects. They copied all the artistic forms of the Greeks, and always, even when they borrowed matter as well as form, the copy in their hands became something quite different from the exemplar. Even in the older imitations of Greek plays, of which there still remain fragments, the sternness of the ancient Roman character gives to the style a striking stamp of strength and trustworthiness; as advancing civilisation permitted greater refinement of form, Elegance appeared as the distinguishing characteristic of Roman art. The idea and name of elegance

occur here for the first time, and later culture has learnt afresh to value the quality by contemplating the specimens of Roman elegance which remain to us. There is no doubt that the Greeks possessed a gift of greater artistic value in their capacity of becoming absorbed in the full beauty of things without the intervention of reflection, and of reproducing that beauty with all the naturalness suggestive of having lived and moved in it; but in art, as in life, the higher does not so include the lower as to hinder the lower from developing to characteristic and irreplaceable worth if its evolution is allowed to proceed undisturbed. As the sharp-angled forms of crystals when compared with the unanalysable grace of flowers still retain their own inalienable charm, so the elegance of the Romans holds its own beside the beauty of the Greeks; and taking our civilisation as a whole, the former could not without loss be replaced by the latter.

The great master of elegance, Horace, has shown by precept and example what it is. When he requires the poet to say what is ordinary after an unordinary fashion, what he asks for is neither an idle play of enigmatical designations nor useless pomp of words, but a kind of justice towards things with regard to which we are in the habit of being unjust. The dust under our feet arouses neither our attention nor our admiration; yet the microscope finds in it crystalline and vegetable matters, the characteristic forms of which would captivate us if the confused intermixture in which it all appears to our eyes did not prevent our perceiving and distinguishing. In the same way the world and life are full of events, the frequent occurrence of which has diminished their value in our estimation, or to the characteristic significance of which we can only give an indifferent, distant, sidelong glance, because of the eagerness with which—and rightly—we press forward towards goals of more importance. It would only be a fresh injustice to bring forward and distinguish with special preference these things which have hitherto been unjustly neglected; what is just is, not to pass them over with the trite and well-worn phrases of everyday usage, but as we observe

them and then pass on, to suggest the forgotten value which they conceal by some uncommon turn of expression prompted by happy insight. The appertaining of what is small and insignificant and confused to the same world that holds what is grand and beautiful and distinct, is brought into notice by the careful aad concise style to which we have referred, without offending against truth by artificial enhancing of insignificant values. This is what Horace calls the unordinary expression of what is ordinary, and with this artistic intention which aims at elegance, the means which he uses are connected. So his poetic art—like that of others—employs imagery not merely to give a twofold expression to the same content, and also not merely—by help of the palpable plainness of some simile—to give clearness to a thought that is difficult to set forth; finally, it does not merely reckon upon the probability that feelings which such a simile may excite (and which attach themselves spontaneously to it) may apply also to the object concerning which it is used, without any express incentive—an incentive which, in fact, it would not be possible for the poetry to convey in express terms: on the contrary, by exhibiting the one event that it wishes to emphasize by means of other and similar events, it abolishes the isolation of the one, and shows it forth as entitled to constitute part of a world in which the most essential features of its character occur and are of value, in other places and under other circumstances, forming part of the general plan of the whole. Roman fancy uses such similes with great precision; by the perfect finish of its brief figurative expressions, a feeling of certainty and assurance is awakened, and this feeling is strengthened by the very strangeness of the construction which often essays to combine ideas from other than the ordinary standpoint. For the success of these essays convinces us of the steady coherence between the parts of the thinkable world; since this, being considered in a variety of aspects, yet always appears as a self-contained whole. The same end is served by many analogous means—the sparing use of ornamental predicates, the due proportion

in their distribution, and in the general grouping of ideas between which a musical or artistic play of connections and contrasts is plainly aimed at; and lastly, the predilection for working out a thought to that statuesque simplicity in which —all that is unnecessary having been got rid of, and all that is necessary having been brought into the sharpest relief—the thought is presented to us as the classical expression for all time, both of the nature of the object of thought and of the right way of regarding it.

Plenty of empty brilliancy of form has no doubt resulted from the following of these rules by poorly endowed poets; but this form of procedure furnishes a favourable testimony to the vitality and character of the people; it reveals even in the productions of depraved ages and unruly spirits the background of a grand discipline of thought which could never be wholly broken. And in other respects also Roman elegance is not to be despised in comparison with Greek beauty. Certainly its chief endeavour is to elevate and give weight to what is in itself small and slight and insignificant, in order to give to our temper and our philosophic views such equableness of tone as characterizes a good picture, and it is true that with this aim it minifies what is great, in place of the overpowering tones of living passion, it generally substitutes the colder reflection in which contemplative thought considers the gain and loss of a struggle which has already come to a conclusion. But when such procedure cannot attain the highest poetry, it may yet give an air of grandeur to the prose of life. Society, as well as intercourse with Nature, produces innumerable situations from which all really striking beauty has wholly disappeared; means to an end which are in themselves indifferent, and the attention which they require place keenly felt obstacles in the way of mental activity; a world of worthless externalities bars the way to that for which our soul longs. Where any occurrence of domestic or public life may be transfigured, either by its own content or by immediate connection with a world of æsthetic or religious thought, the Greeks have not failed to consecrate it thus in

a striking manner; but to give interest and an air of stateliness to that prose of life which obstinately refuses to be transformed into anything but prose, and to do this by the mere mode of treatment adopted, was a task the merit of accomplishing which belonged to the Romans. Their mode of thought, which in art created the special notion of elegance, introduced into life a not less special dignity in the formal treatment of all kinds of subjects. With the declining vitality of the nation, reverence for the sacredness of legal institutions (once the fairest flower of Roman thought) became weakened, and only ceremonial and the external regulation of splendid ostentation continued to receive further development; and these themselves were elements which, after the fall of the empire, helped (amid the chaos which characterized the beginning of a new order of international life) to preserve the thought that everything has some particular mode which, and which only, is right for it. From this legacy left by the Romans the men of succeeding centuries derived a large part of that which gave beauty to their life; and that portion of this legacy of which we are the historic heirs, still works more powerfully within us than the artistically more important heritage that we have received from the Greeks, which affects us by rousing us to conscious imitation. Numerous forms of expression which have been transplanted into modern languages, the character of our public solemnities and the difficulty on all such occasions (and for inscriptions on monuments, records of solemn ceremonies, or brief and pregnant sayings) of replacing the statuesque style of Roman speech and custom by substitutes of home growth—all this still bears witness to the lasting influence of Roman civilisation—an influence from which, even now, we have scarcely begun to try and emancipate ourselves, and for the advantages of which we do not as yet know any adequate substitute.

§ 5. Between the fall of the ancient world and our own times, the temper, morality, and æsthetic feelings of mankind have experienced many changes, which must be passed over

in silence by our brief survey, which is concerned only with the lasting results of these developments. There were set before imagination increasingly difficult tasks, which roused it to passionate agitation; but there was an absence of those favouring conditions which in the age of classic antiquity made it possible to impress upon life a stamp of harmonious beauty.

To the ancients the starting-point and goal of all human endeavours were, as a whole, plain. Nature lay before them as the only reality; in unceasing creation, which is its very essence, and without pursuing ends situated beyond the sphere of its phænomena, it brought forth even the human race, as the fairest among its perishable blossoms; that man should live in harmony with Nature was the common conclusion at which the ancients, setting out from the most various premises, had arrived. Excellence of national disposition and the intellectual candour of an active spirit of investigation prevented this adherence to Nature from being carried out by obedience to every rude and blind impulse, and every noble and attractive quality of the race was cherished as a distinctive endowment by which Nature prescribed to man a path which leads beyond the limits of the animal world; to the fair ideal of humanity thus formed, a rich and harmonious development of characteristic morality and custom was insured by an almost undisturbed national evolution. But no recognised aims lay beyond; the course of events might pursue the same round for ever and ever; Nature might go on to eternity producing fresh relays of short-lived mortals, each generation of whom, after having exhausted the good things which its organization enabled it to develop and to enjoy, would be reabsorbed into the same universal Nature. Now doubtless there will always be a secret contradiction between this sacrifice of self to Nature and its transitoriness, and a civilisation which, the more noble the aims which it recognises, only presupposes the more an eternal preservation of all that is good; the impetus of eager and exuberant activity easily carries men past unsolved problems which press upon those

who have leisure. So that antiquity did not in theory overcome the discrepancy in its philosophic view, but neither did it allow this discrepancy to influence its temper. It neither sought nor found that higher world, into the eternity of which the transitoriness of this debouches; yet it did not, like oriental pantheism, take pleasure in extolling the frailty of the individual. A happy talent for making the most of mundane existence, and pleasure in the increasing success of efforts in that direction, helped to compensate for the great deprivation of not recognising any significance beyond that of a mere passing natural occurrence in even the very highest of its works, that is, in the cultured development of human life. As long as the creative activity of antiquity traversed an ascending path, and as art and political life were fruitful in the production of new forms expressive of the ideal of the age, while historical circumstances were favourable to attempts at their realization, so long the still impetuous general movement of civilisation carried men safely over the weak place in their philosophy, and the fits of doubt and despair which appeared in isolated minds and at isolated moments, had little influence upon the general temper. In course of time such favouring conditions failed, and antiquity, having exhausted its creative strength, developed uncertain, dissatisfied, contradictory tempers which attacked the hitherto received philosophy on all sides.

Another foundation had from the beginning been given by Christianity to the new civilisation which was to grow up upon the ruins of that which was passing away. Christianity had demolished the calm self-sufficingness of the secular world; the life of humanity which to the ancients seemed like a never-ending uniform stream, was by it compressed into a course of stern dramatic development between the two events of the Creation and the Last Judgment, and (as compared with the Kingdom of Heaven) depressed to a mere brief stage of transition; that to which man was destined no longer appeared as the goal at which our being naturally aims, but was regarded as attainable only by conflict with innate impulses, of which the noblest seemed to be hardly more than

splendid vices; great Nature herself was no longer considered as the sole cause of things or the mighty Mother of all, but merely as an instrument in the hand of Providence; and even to this vocation she was thought to have been untrue—the intrusion of sin had distorted her features, and there was in her a mingling of memories of what was divine with inexplicable self-will and the seductive charm of evil powers. These richly coloured pictures of a vast cosmic history entered perhaps more generally and deeply into the imagination of the people of the Middle Ages than the spiritual content of Christianity did into their heart; and they did not have merely the same effect as other similar oriental pictures which afford us glimpses of the beginning and end of the world hovering in mythic obscurity at inconceivable distances of time. In times of historic light—times of which the detailed outlines were recognisable—there had happened the greatest marvel in the providential guidance of the world; bringing with it into its own dazzling reality, all connected circumstances whether past or future, making them look as if they had either just happened or were just about to happen. Men did not see symbols, with regard to which they were uncertain as to how much was figurative and how much real and serious, but they actually stood in the current of universal history and felt themselves carried forward by it.

Thus, whilst antiquity only cared to see with the eye of intuition what things were, and whither their development was tending, the imagination of the new age developed a taste for subtle inquiry; it distinguished everywhere between what things appear and what they signify or what they are a means to; life was to be ordered after a pattern, the sole content of which had first to be discovered by interpreting an ideal that soared high above all reality; but resigned obedience to the ordering of this life had at the same time to struggle with the discouragement constantly arising from a consciousness of the merely conditional value and temporariness of all earthly existence; finally, this difficult task had fallen to the lot of nations which were not supported by any heritage of

long-accustomed civilisation. Christianity did not immediately supply this want; it had indeed ennobled from within the developed forms of ancient life as long as these lasted; but systematizing ideas capable of furnishing a foundation for new constructions, could not be easily obtained from its simple ideal content. Perhaps it is rather the case that all the characteristic contrasts of the Middle Ages were held together by the fact, that the vigour with which they grasped a high ideal lacked all thoroughly developed insight into the articulation of the instruments necessary to prepare a place for it in the world of reality. With the aim of antiquity—to develop what Nature prescribes—was given also the way by which that aim might be reached; but the new ideal of sanctification towards the attainment of which all Nature affords no aid, left the question, What shall we do to be saved? without any such definite answer. Proximate ends, the earthly vocation of men, admitted of various interpretations; salvation might be sought in various ways. Yet neither in penitential aversion from all the interests of earthly life nor in the excitement of knightly combat was full satisfaction found; both these modes of life were at the best conflicts with threatening evils; but they were not productive of any material gain which could be cherished and guarded; just as little was labour capable of setting all longing at rest; occupied by the pressing needs of life which were regarded as being necessary only on account of earthly imperfection, labour for a long while felt a sense of its own meanness and could not regard itself as direct service in the work of sanctification. Thus human life attained to no clear views concerning its earthly tasks; it was the reconstruction of society which gradually, at first, toned down the excitement of the prejudice which made men think that they must do once for all in this life work which had an inalienable place in the universal order; instead of feeling themselves called upon to be conscious participants in the construction of the great universal fabric, men learnt afresh the lesson of valuing every unim-

portant situation resulting from human intercourse as affording scope for the exercise of moral strength, and learnt not to seek in life anything more lofty than it is capable of affording.

Thus there had not been developed a generally received type of human culture; but every rank and condition had its own code of morals, and sought in the exact observance of transmitted ordinances an historical justification of its mode of life, in place of that ideal justification which it lacked. There was never a greater multiplicity of forms and observances than in the intercourse of the society built up out of all these multifarious distinct elements; but this very state of things corresponded to the theoretic philosophy developed by the Middle Ages in contrast with antiquity. The eye of antiquity was captivated by that which is general and homogeneous in human life and in Nature, and which is ever recurring in inexhaustible variety of manifestation; it made no great effort to comprehend the world as a whole. It was not possible for Christian imagination to have so much sympathy with this generality; what it regarded as the really efficient agency in the world was not that nature of things which works homogeneously in a variety of subjects, but that divine Providence which has a special purpose with regard to every individual, and assigns to each his share in the building up of the whole. Minds were very earnestly directed to this unity of the world, which consisted in the congruence in one plan of innumerable individuals, speculative philosophy as well as practical life neglected the region intervening between the Whole and the Individual—those generalities of homogeneous activities and simple laws by means of which alone the materials of any edifice can be combined into one whole. The knowledge handed down by tradition having become meagre, the educational curriculum of the Middle Ages sought to compress encyclopædically the sum of all that was knowable into one great whole, in which the sciences were arranged in an order that corresponded to the place which the subject of each seemed to occupy in the

divine plan of the universe. What was accomplished was far from being equal to what was designed; but even the external forced and far-fetched concatenation which was brought about shows how vivid was the belief that all things are closely connected parts of a divine cosmic order —the unsubstantial truths of mathematics as well as human history and the rich variety of Nature in products and events. In this cosmic construction, which was regarded not as the simultaneous production of a manifold from a homogeneous cause but as the combination into one whole of the most heterogeneous members, a social system comprising many varying codes and callings naturally found a place.

This mode of thought which regarded nothing as self-contained, but considered everything as either significant of or connected with something else, could not favour impulses to æsthetic construction. An exaggerated leaning towards symbolism caused a disproportionate value to be set upon the significance of phænomena, and weakened men's susceptibility to beauty of form, which depends more upon general laws of the reciprocal relation of several elements than upon the intellectual significance of the whole which these constitute. Delight in the splendid profuseness of life itself was foreign to this philosophic view, and would have remained foreign to the age also but that it is not possible for any philosophic view, however deeply rooted, to wholly alter the unvarying natural tendencies of the human race. So that the men of the Middle Ages, notwithstanding the oppressive solemnity of their idea of cosmic connection, had also a liking for fun and enjoyment; and notwithstanding their mania for symbolic distortion, took pleasure in self-sufficing beauty of form. But even in the imitative arts they did not attain to any originality in the reproduction of beauty; for a long time sculpture and painting were mere vehicles for the expression of actual thoughts, feelings, or situations—aiming at first at mere conventional indication of their meaning, but afterwards at natural and powerful expression. At last art bethought

itself that its productions ought not to be of merely commercial value, but should be developed to creations having a full, beautiful, and characteristic reality of their own. In architecture alone—the activity of which does not, to so great an extent, presuppose unfettered and original skill—it was possible for works of great and special merit to be produced by imitation of existing models, and a sense of the complex beauty of proportion (a beauty susceptible of realization) both in the whole of an architectural production and in its details. Such works sometimes combine into clearly expressed unity a multitude of members differing from one another; and sometimes by adopting a principle of construction which seems rather suited to a picture or a landscape than to architecture, they recall that characteristic manifoldness of human life which it is difficult to take in at a glance. Poetry, as an art of words, needed for its full evolution a considerable development of language, and this during a large portion of the Middle Ages was lacking; for not only were the languages of some of the nations slow in becoming fixed, Latin remaining for a long time the instrument of communication among the learned, but the undeveloped state of society had still more influence in hindering the advance of language as the instrument of social intercourse. There lacked that cultured language which thinks and poetizes for us, and the thorough development of which, up to a certain point, is undoubtedly a necessary condition of complete perfection in poetic form. Profound feelings did unquestionably find powerful expression in national songs; but even narrations which conformed to the rules of poetic art did not succeed in giving a perfect representation of the rich poetic content of ancient legends; form remained inferior to content.

And this was the general fate of the age. It lived a life full of poetic impulses from the strength of which it suffered; but it was only in the mind of posterity that there was developed a comprehensive consciousness of what that age might have been to itself, if it had not been hindered by so many obstacles from recognising and realizing its ideal.

As life began to take in a high degree an intelligible form, imagination, which always seeks to find its way by a short cut from the pursuit of common aims to the secret of the Eternal, turned back with a feeling of preference to the picture presented by the Middle Ages—or rather to the ideal antitype of this which it had constructed for itself. For indeed as a matter of historical fact this romantic temper in looking back could nowhere find such an age as that which it thus preferred; the actual Middle Ages were richer in good and in ill than the dreamy temper of romance, which everywhere sought the infinite in the finite, and turned away from intelligible ends—richer in real interests, the obstinate individuality of which was not wholly exhausted in symbolism; and likewise richer in natural barbarism and eccentric cruelty —that are the heritage of primitive savagery (which it took Christianity a long time to tame thoroughly) and of those fanatical wanderings to which a misunderstanding of great ideals commonly leads. But still this age has left to us a very important legacy, namely that dissatisfaction with what is merely phænomenal and that longing for the infinite which give the keynote to the æsthetic temper of modern times and to its poetry; although the age itself, mistaking the noblest sources of its life, not unfrequently imagines that it may become greater by imitating other ideals than by developing its own.

§ 6. If we glance at the monuments of Romanesque and Gothic architecture, at the flourishing condition of painting in the fifteenth and sixteenth centuries, at the progressive development of music and the treasures of poesy which the Romance and Germanic nations of Europe, vying with one another, successively produced in rich abundance, we are convinced that the human race was not lacking either in susceptibility to beauty or in power of artistic construction at the period of transition from the Middle Ages to the modern era. A decision concerning the comparative greatness of these two endowments at this period and in antiquity finds equal hindrances in the difficulty of the subject itself and in the

many prejudices that have been produced both naturally and artificially; there will be more unanimity in the complaint that the echo which even the best of the more modern art found in real life appears to have been incomparably less than in antiquity, and even where considerable to have been of a less satisfying kind. For the Greeks at any rate appreciation and enjoyment of beauty were a substantial part of life; and though no doubt the culture which makes men capable of both was unequally distributed among them, yet the less intelligent were surrounded, as by the atmosphere which they breathed, by a kind of artistic rhythm which had impressed its stamp even upon the customs of ordinary life. The gulf which separated the life of more modern nations from their art, was wider; men became accustomed to contemplate an ideal kingdom, far removed from living reality—a region which it was both possible and delightful to look up to, yet the contemplation of which could not be regarded as part of the proper business of life, but rather as a relaxation from it. It seemed to them that among the innumerable wonders which the universe contains, and in which men (incapable of examining more than a part of the whole) take a spontaneous interest, art is one—that it grows and blooms like an exotic plant, the marvellous productive impulses of which, deviating from all indigenous models, from time to time captivate and interest the fancy.

We here find art not as yet detached from all connection with religious, public, and social life, though the nature of the reciprocal contact shows its superficiality. In antiquity, religious worship was the living act of the national mind, to a great extent supplying poetry with its *raison d'être*, its content, and its form; what art furnishes to us is formal powers (which it attributes to its own nature) that may be used to embellish religious worship; even now, in moments of peril which rouse passionate feeling, it may rise to adequate expression of the national consciousness; but in times of rest it finds no fixed popular ideal of morality and life from which to borrow the form and content of its productions, and there is put at

the service of its formal means of expression only one-sided party tendencies, or petty private interests, or capricious individual views of life; it does not penetrate social life in such a way as to become as it were its very rhythm, but among the many dishes which society serves up to help while away the time, art also brings its contribution, which makes a change and is an assistance. It would be a misapprehension of these remarks to take them for a denial of the real worth of modern art or of the powerful effects which it produces even under such unfavourable circumstances; but we think it desirable to bring these circumstances into prominence. It would, however, be just as great a misapprehension to take what we have said as applicable only to the dull multitude which has always been without appreciation of beauty; in order to understand all the barbarism of our attitude towards art, we must call to mind arrangements which, by their commonness, have already wholly ceased to affect us unpleasantly. We crowd pictures together, one above another, in galleries, so that the impressions received from them are mutually destructive; the resolution to erect any great architectural work is followed regularly and as a matter of course by a discussion as to the style to be adopted, that point being regarded as an open question; at concerts, which are given in places and at hours the choice of which is determined by causes known only to the person who provides them, the hearer's soul is carried compendiously through a whole series of masterpieces; occasionally some quiet valley, invaded by a troop of singers, without knowing why, suddenly hears chanted by a hundred voices the praises of its modest violets which bloomed so long unseen; the theatres are opened almost nightly, and it would be hard to say whether the sentiments or the taste of the spectators are most cultivated by their rich variety of material and style; fortunately there is a less frequent recurrence of the pleasures of the Carnival, which is as incoherent in itself as it is devoid of any living connection with life, and which has long ago forgotten what originally gave rise to it. All these exhibi-

tions of varied beauty and artistic skill take place for their own sake, and do not mark any important epochs of human life; they connect the enjoyment of art with fixed times, in the same way as, at any rate, Protestant worship does divine service; as in the one case the world is left to itself for six days, but on the seventh men "go to church," so in the other case the prose of life is sharply marked off from moments of poetic exaltation.

Of all this we can alter nothing. The modern spirit, which analyses and investigates critically, has begun in all departments of life to seek for rational foundations; with conscious calculation it aims at constructing society according to principles which do not leave to the once characteristically various multiplicity of social conditions either a *raison d'être* or any significant task to accomplish; the very course of events, by inevitably procuring recognition of the human rights of every kind of labour and of every labourer, has contributed to the levelling of society, even to uniformity of costume, and has fixed a moderate temper as giving the tone to social intercourse—a temper which has to be on its guard against the intrusion of elements of intense dulness, and which will scarcely allow that the external forms of life should be informed with beauty. The tendency of the general instinct seems rather to be towards entirely purging social intercourse from all poetic elements, which would appear as mere fantastic inequalities in its measured sobriety, and to reserve all excitement and enthusiasm for the retirement and solitude of the private life of individuals. Here the best part of our mental development is accustomed to take refuge more now than formerly, fearing all publicity as almost a profanation.

I have already remarked that this characteristic of our time does not in itself make it impossible for art to exercise great influence upon men's minds, nor for its productions to have a high degree of perfection; yet in both these respects the characteristic referred to is not without effect. The less the thought and style of art are the direct expression of popular philosophy, and the more its works seem to be the arbitrary

constructions of an imagination that is merely making unrestrained trials of its strength, the more easily does art evoke critical estimation of the merit of its representation, instead of sympathy with its content. There has been plenty of criticism in all ages; and on the other hand I do not maintain that single-minded devotion to and enthusiasm for beauty are things unknown in our day, but a careful comparison of the productions of art (the business of which is to embody beauty) is more frequently met with; the peculiar pleasure of connoisseurship, the satisfaction arising from intelligent knowledge of the instruments and tricks of art, their historical development and their application in particular cases, and a half critical, half literary interest in the procedure of creative imagination—all this lessens our susceptibility to the immediate impression which it is yet the sole final aim of such imagination to produce. As the collector shuts up in portfolios the works of art which he has brought together, content to possess them and to know what æsthetic impressions they are capable of producing, if ever the hour of unrestrained enjoyment should come, so all of us are in a general way satisfied to possess an intelligent consciousness of the latent power which beauty has to stir our souls; æstheticism congratulates itself on increasing sympathy, in proportion as the living emotion produced in the soul by the objects which it judges becomes rarer.

Art itself has also suffered from the causes which have produced these conditions. Mankind have not, indeed, wanted for great geniuses since (from the end of the Middle Ages onwards) the increasing enlightenment and many-sidedness of social culture have afforded opportunities of evolution to such minds. With the exception of sculpture and epic poetry (essential conditions for the prosperous growth of which were lacking), there is no art which has not in this period reached the highest point of development. A long series of the most illustrious names, versatile minds equal to the greatest of antiquity, adorn the annals of Italian art; more solitary indeed, but in the same degree more great, is the lofty genius

of Shakespeare, whom Northern Europe can boast. Yet there is a frequent complaint that the productions of these powerful minds, together with those of the illustrious men of later times, are (notwithstanding their greatness) lacking in that classic perfection of form which has made antiquity the one epoch that can be regarded as affording models to the art of succeeding times. I hold that neither this praise of the ancients nor this blame of the moderns is just, if taken in the careless generality with which both are commonly expressed. The ancients seldom failed from individual caprice; their world of artistic thought and their favourite methods of treatment grew so directly from their popular philosophy, and were so generally established by tradition and constant practice, that even the less highly endowed minds attained to the harmonious use of artistic forms as easily as in our time they do to irreproachable social behaviour; and this very harmony of treatment occurring in an immense number of works of art causes us to regard as among the essentially necessary conditions of beauty, much which even in the antique works themselves is mere conventional manner. Modern art lacks the advantage above referred to. It grew out of passionate needs of the soul, the satisfaction of which men had to search for since they did not find it ready to their hand, either in science as it then existed, or in social intercourse, which was in a state of disruption, or in the political constitution of public life. Modern art therefore had not the simple task of giving an artistic reproduction of beauty of which it had had living experience, but it had the double task of finding first an ideal which should satisfy its longings, and then the forms in which to embody this ideal. The revival of antique art could only partially further these ends; much could be learnt from its forms, but as far as its content was concerned, this did not come up to the demands made by the spirit of the later age. When for some time men's dominant endeavour was to reanimate literature, art, and politics with the spirit of antiquity, what took place was not an historically necessary development, but a conscious move-

ment, which, choosing freely among various directions that stood open as possible paths of further development, selected a particular one in preference to the rest. The want of a generally accepted ideal, and the necessity which there is that every age, every nation, and every individual genius should fix once for all its own highest aims and its own forms of expression, introduced into modern art its varied and rapid alternations of style, and gave to its works as compared with those of antiquity a predominant stamp of intellectual wealth. For we may very well describe by this phrase the impression which we receive when imagination, instead of being borne along by the general current of the age, and reflecting without effort some representation of the universe which has become a kind of second nature, undertakes independent investigation and analysis, in order to arrive at some interpretation of reality, of which reality itself cannot refuse to recognise the truth. Incontestably this free action of imagination is oftener exposed to æsthetic failure than imaginative activity which works in subordination to a fixed ideal; modern art was not satisfied by representations of universal, typical, generic beauty, but became absorbed in profound depths of human existence which had been previously untouched, and sought to investigate the mighty coherence of the universe with many a passionate question concerning its significance—thus it was in danger, on the one hand, of arriving at fanciful conclusions, not recognised by reality as justifiable, and, on the other hand, of neglecting formal beauty of representation on account of the predominance of reflective activity. In many works of wit and sarcasm and insolent caricature, capricious fancy has no doubt overstepped the limits of beauty; but, on the other hand, if poetry attempts to portray the secret development of human character, if painting is only satisfied when it can succeed in presenting a reflection of the story of such development compressed into the action of a moment, if music, stripping off from our feelings all remembrance of their earthly occasions, so enlarges and exalts them that their movement becomes the interaction (not describable in words)

of those universal forms of the connection of elements upon which all the joy and all the pain of reality depends—if all this is so, and if we take as our model abstractions derived from a far simpler age, it is easy to disapprove a large part of the wealth of modern art, but difficult to be impartially just to the lofty beauty which has assumed new and unique forms under these more complex manifestations; finally, it is in any case impossible to give up what we now possess, and to return to that greater simplicity which can no longer satisfy our hearts.

In spite of its slight connection with the higher aims of art, modern life is not wanting in a special æsthetic element, that has, in course of time, made itself felt in many and various ways. The modern spirit of criticism and of self-conscious reflection first showed itself in Italy; the cultivation of knowledge of all kinds and formal excellence in all the dexterities and refinements of style, both in language and in the intercourse of life, were the ends at which it aimed, and which in many brilliant instances it attained; the large and significant views which constructive art inherited from the Middle Ages, views by which it held fast and which it was able to embody with a technical perfection which made rapid progress, afforded a wholesome counterpoise to the unrestrainedness of this subjective spirit. Political disasters interrupted the progress of this development, and Italy abdicated to France that living dominion over the rising modern world which it had for a time possessed unquestioned. In France the gradually perfected centralization of governmental power had caused the formation of a coherent and exclusive society of aristocrats, who, being compelled to keep comparative peace among themselves, and being furnished with abundant means, but destitute of any great aims in life, were forced to employ their intellectual strength upon problems of social intercourse. The condition of the people, which furnished the necessary basis of such a society, was miserable to a degree; indeed, the epoch taken as a whole was by no means a Golden Age, that men need wish back

again; but it was undoubtedly this isolated concentration of action and reaction between the most favoured constituents of a great State, which first gave to the spirit of modern times a characteristic æsthetic expression.

It was language which above all experienced the influence of these favourable conditions. It was developed as it had been in Greece, by means of living conversation, though not as there in the publicity of a great political life. Such conversation dealt with all imaginable subjects of reflection from all possible points of view; and being thus compelled both to use brief and clear expression, and to clothe opinion in an agreeable dress, the French style became formed into the most perfect prose that up to that time the human mind had succeeded in constructing. There is but little of the aroma of poetry about it, as might be expected in the instrument of expression used and formed by a society not accustomed to manifest its deepest emotions; but it has the well-defined, lucid, orderly movement and the conscious respect for generally recognised conventional rules which were likewise necessary in such a society; it does not show the interesting but awkward originality with which, in the prose of the ancients, we often see the thought that is to be communicated unfold from its germ, and as it were seek its fitting form, but as becomes the heir of an old and reflective civilisation it skilfully lays hold of the most diverse among familiar points of view, and accomplishes its object by means of abstractions and modes of combination applicable to them all; in these respects it corresponds to the character of the modern spirit, the strength of which consists not in flights of artistic enthusiasm in which it rushes upon its objects, attracting attention and betraying its own inward excitement, but in the unobtrusive business-like way in which it gets rid of difficulties, being conscious of knowing ways of solving them which are of general application. It is not surprising that through this spirit of clearness and precision the French language obtained dominion all over the world—a prerogative which it has only gradually lost. In Germany the rise of a

higher kind of art to which the genius of the French language was not adapted, caused its supremacy to be set aside, but a substitute for its prose has hardly yet been found in that country. The living unity of society was lacking there; the too great predominance of learned culture thence arising, and the inherited error of not only learning from antiquity, but also of imitating it, caused German prose to be for a long time awkward and confused, and the language itself and its resources to be more unfamiliar to the people than in other countries. For let the Germans not deceive themselves—though the whole nation can read and write, he is a happy man who need not hear the reading nor see the writing; the gulf that still exists between the perfection of the language in the masterpieces of German poetry and the style of ordinary life is wide indeed. It will only be gradually filled up as the education of the circles which do not go to antiquity for guidance increases to such an extent that they can give to the modern modes of expression which they use for modern views and interests the established character and fixed form which it is quite in vain to expect from ancient models.

The peculiar character of the time found more whimsical but not less animated expression in the much abused Rococo style which became dominant in the ceremonies of social intercourse in costume, buildings, furniture, and even in the laying out of gardens and of pleasure-grounds. It is easy for us, guided by the teachings of historic periods which were more favoured in an artistic point of view, to reproach this style, because, being destitute of feeling for the characteristic truth of things, it distorted the real nature of everything without exception that it attempted to beautify, and with odd caprice imposed arbitrary forms and laws upon every department of life into which it intruded; yet it cannot be said that this caprice was incoherent and inconsequent. Certainly it had no other principle than that of the sovereign and unrestrained will with which the subjective mind moulds all given material into a creation that is according to its own fancy; but it did not merely apply this principle with rare

consistency to things, but with stern discipline brought even human life under self-imposed laws of etiquette. Certainly the forms which it forced upon all objects and all relations cannot be understood by reference to any artistically justifiable principle of form; but the very end aimed at was to be invariably graceful even amid all the complete arbitrariness of this procedure, and where there is a cessation of all rule dependent upon the nature of the thing, to find by the power of the mind itself a definite law of the production of pleasure. It would be mere scholastic pedantry to deny that in many cases this was accomplished; not only do we trace with pleasure in countless individual utensils, buildings, and fashions of the time the bright and graceful flight of this arbitrary fancy, but among all the styles which have ever pervaded life in all directions this as a whole seems to be quite the most in harmony with natural receptivity. Who would not admit that Classic and Gothic art unfold a refined and lofty beauty that is more to be reverenced than this? But at the same time we may admit that they are alien to us, and that especially every renewal of the antique in our life looks like a learned pretension to the possession of superior understanding, whilst in defiance of all æsthetic systems, we always sympathize with the Rococo style.

But this too has passed away; and the æsthetic elements which life in the present day still retains appear much more insignificant. We often hear quoted the saying that architecture is *frozen music*: hence I have some hope of gaining a modicum of undying fame by taking a step further and calling mathematics *desiccated music*. For what element of music does mathematics lack except the living sound? All its other elements and resources are common to it and to music, or, more correctly speaking, music borrows them all from mathematics. Now it seems to me that what has remained to us as the good genius of our age, is just a mathematical element of exactness, neatness, concise clearness and simplicity, supple versatility and pruning away of all superfluities. As compared with the roundabout procedure and

awkwardness of innumerable regulations of earlier times, what a preference do we now see for that elegance which characterises the most concise solutions of difficulties! What brief and severe simplicity do we see in the structure of machines! what vast effects produced by the ingenious combination of simple means!

Undoubtedly there is beauty even in this, and we may rejoice heartily in that genius of modern times, which no longer wearing antique draperies, or dreaming through life with flowing hair, goes with shorn locks and close-fitting garments; and we may hope that it will raise from this small germ a mighty tree filling life with fresh beauty.

# CHAPTER IV.

## THE RELIGIOUS LIFE.

Comparison of Eastern with Western Life and Thought—Nature and Social Life as Sources of Religious Ideas—Preponderance of the Cosmological Element in Heathendom, and of the Moral Element in Judaism and Christianity—Christianity and the Church—Returning Preponderance of Cosmology in the New Philosophical Dogmatism—Life and the Church.

§ 1. THE East has been the birthplace of all those religions which have had a decisive influence on the destinies of mankind. And not only has it (as the fatherland of all nations historically important) forestalled future ages by giving birth to the germs of all religion—religion being one of the things earliest developed by the human race—but also even in later times the religious life of the West is distinguished from that of the East by a permanent difference of disposition and of the course of development. In the latter the imagination of men became early susceptible to the numerous analogies by which visible reality points to something beyond itself, and drew in grand outlines pictures of a supersensuous world, which contained the beginning and the end, the completion and the explanation of the world we know. And the manifold content of this faith was no mere impotent dream of enthusiastic moments; the thought of it pervaded the insignificant customs of everyday life, the rules of commerce, and the ordinances of morality; the obligatory commands, which seemed to flow from it, received unquestioning obedience, whether they demanded the long self-denial of a life of penance, or some one supreme sacrifice; even general social and political arrangements were (without separating between divine and human law) governed by an ever-present thought of the great universe, of which all earthly things make but a dependent part. This broad and

widely-comprehensive view remained in many respects peculiar to the East, and still has an imposing effect upon us, but the blood of the Western nations cannot endure for a continuance that repose of cosmic contemplation in which this view causes men to become absorbed.

The more exclusively imagination aims at combining the manifold of reality into a whole in the unity of one plan, the more is every particular arranged and fixed in its own proper place, and cared for and subordinated within the clearly-marked outlines of this whole—supposing, of course, that the attempt at unification appears successful. We are stimulated to advance by the unknown reaches of the path that lies before us; to have an early view of all attainable goals only makes men wish to continue undisturbed in the position in which they happen to be, and beyond the horizon of which there lies nothing essentially new. To such an early survey and to such quiescence did the nations of the East attain; the universe as a whole seemed to lie finished and complete before them; it had been such from eternity, and the future could add nothing to it. Many things in it seemed uncertain, but nothing really was so; there was no such thing as a merely probable development of cosmic history capable of being determined by some exercise of human freedom; there was no field for the exercise of inventive activity which might enrich life by new productions, or accomplish by purposive struggles anything more than that which, being preordained, would come to pass without human effort; according to the immutable ordering of the whole, man can choose nothing except what he cannot avoid, namely to live that part of the life of the universe which falls to his share, and to suffer and rejoice therewith. It is true that even within these limits human nature (which is never wholly brought into subjection to its own philosophic views) finds room for untamed passions; but the only goals which these can have are visions of pride and sensual delights—visions which fall to pieces when the passions that gave rise to them are burnt out, and which do not affect the old order of things, which goes on unchanging

and undeveloping. Therefore, however agitated the course of oriental life may be in detail, looked at as a whole all its activities appear to be enclosed by a broad framework of resigned quietism.

The West developed a contrary bias, and this the more vigorously in proportion as it freed itself the more thoroughly from oriental traditions. Its imagination was never directed so eagerly to a comprehensive view of the world as a whole, but all the more eagerly to those universal laws upon which the reality and movement of the world itself in every particular depends. The oriental representation of the complete and finished condition of the world and of the circle of its phænomena exhibited a universe that had been perfected once for all, which no one could add to or take away from; but to gain a knowledge of these universal laws the world had to be regarded as something imperfect, to the perfecting of which it was possible to contribute; for these laws taught men to comprehend not only the condition of what actually existed, but also the possibility of much that as yet did not actually exist; and opened to the mind that was struggling onwards a prospect of reconstructing—for its own ends and by the help of these laws—both external Nature within narrow limits and human life within much wider limits. For such a mind there was possible a history in which human action should determine the as yet formless future to new and hitherto indefinite developments of reality.

It is said of philosophy that if the cup is merely tasted it leads man away from God, but that if it is deeply drained it brings him back again. Perhaps this saying is equally applicable to the whole mode of thought which in occidental civilisation gave rise to its characteristic restlessness—to that spirit of progress which must be for ever bringing change into every department of life, and to the investigating and analysing spirit of philosophy itself. For certainly that which first makes a distinct impression upon the mind is the alienation from God and from what is divine to which on the whole the course of this period of civilisation has unremittingly tended.

In as far as imagination influences life, the horizon of human imagination has undergone progressive contraction in proportion as there has been an ever-progressive increase of clearness in the diminishing field of vision to which it restricted itself. With growing knowledge of natural products, and increased skill in making use of them, men's insight into the connection between them and the supersensuous world has not become clearer, but attention has been weaned from dwelling upon the connection as one of the problems which have to be considered; and life and morality have become more and more separated from the content of religious belief, regarded as the source of obligation, and have become more and more established upon secular principles of their own. Æsthetic sensibility, averse to ideals of vast and eternal significance, has turned from what was great and exalted to what was elegant and correct and to the activity of intellectual resource exhibited in it. Art is hardly able to cope even with what is merely historically great, but in genre-painting it gives characteristic reproductions of fragments of life. In science, dependence on experience has taken the place of speculation, and elements and general laws of action have supplanted the predetermining oneness of creative and formative Ideas as means of explanation. In a similar way in the department of practice individual rights are being brought into ever greater prominence as compared with the duties demanded by consideration for the whole; and finally, we see that increasingly general acceptance is accorded to the principle of letting every individual power act unhindered, and of expecting the most satisfactory condition of human affairs from the equilibrium which the various forces will reach of their own accord through the reciprocal action of all.

All these features cause Western civilisation as compared with Eastern to have the aspect of a wholly profane or secular life which does indeed willingly submit to the general conditions and laws which govern the course of things, and skilfully contrives that these forces should work for it; but is little conscious of any necessary connection between its thought and

action as a whole and a supersensuous world, and is of opinion that it only needs, and need only regard, as much of what is divine as may be expressed in the form of general laws for the regulation of moral conduct. Undoubtedly the entrance of Christianity into the Western world was like a mighty inflowing wave which interrupted this ebb, but it has not prevented it from resuming its course. Dogma and worship are equally poverty-stricken, and efforts which aim at their rehabilitation have to encounter increasing aversion; religiousness disappears from morality even while morality increases in humanity and refinement; not only does the articulation of secular society avoid all ecclesiastical control, but even the coherence of church communities becomes loosened by the growing demands for independence made by individual opinion. Are these conditions signs of a general retrogression of humanity, or do they conceal an advance which appears to us to be primarily occupied in breaking up the old forms of religious life, but which does not leave us without hope that in the future those old forms will be replaced by new ones?

§ 2. Nature is commonly our earliest guide to religious contemplation. Observation of Nature leads in various ways to attempts to supplement the perceptible content of reality by continuations which are visible only to the eye of faith. Imagination looks to the past, seeking in histories of the origin of the world an explanation of the wonders of the existing universe—wonders which could not, it seems, have owed their birth to such an order of Nature as now obtains—and it looks also to the future, seeking to find some continuation of Nature into which the swift-flowing stream of earthly life may empty itself and find continued existence; the two lines of fancy are connected together by a more or less comprehensive knowledge of reality so as to constitute a whole of greater or less completeness. If no other interest than the merely theoretic one of explanation were involved in this cosmological construction, it would attract no greater sympathy and attention than the geological opinions of the Neptunists and the Vulcanists, or than the equally divergent

conjectures which imperfect astronomical science once put forth concerning the structure of the starry heavens. But in those cosmological views there is always contained some expression of men's conclusions concerning the worth of the world, and the amount of satisfaction which the order of Nature affords or refuses to the irrepressible needs of the human soul; and with the pictures which are drawn of the powers which create, preserve, and guide the universe there is always connected a more or less developed view of the position which man occupies with regard to them, or the attitude which in action he should hold towards them. It is only for these reasons that we can with any justice seek the germs of religion in such complementing of natural phænomena and such combinations and explanations of them; we can attribute all the significance implied in the name *Cosmology*, to those systems only in which that is made the standard of worth and the point of departure which in existing theories has but a secret influence—I mean a conscious recognition of the unconditioned validity and truth of Morality and Holiness as compared with all that is, or seems to be, matter of fact.

Now if the whole of Nature lay before us we should see its manifoldness combined in a unity which—being the perfect reflection of what ought to be—would teach us what the significance of Nature itself is, what our place in it is, and what the aims of our existence are. But such insight as this is reserved for the end of time. To every nation that has entered on the path of civilisation, Nature has displayed but a small section of its whole content; different in different zones and climates and unintelligible in its connection without the enlightenment to be supplied by investigations which have not yet been carried out; unfit to form the basis of a comprehensive view of the world, because the condition of that which has been observed seems to leave diverse modes of completion equally admissible. Imagination always finds in the course of Nature traces of harmonious and beneficent wisdom; besides these it always finds also traces of discord,

harshness, and cruelty; it finds much which leads it to believe in a righteous Providence and much of which the Nature is such that this belief can only be held in defiance of it. Different nations have become absorbed in the confusing complication of these facts—men with different degrees of mental activity, with different temperaments, and under the influence of very divergent modes of life; and according to the measure of their endowments in these respects they have attained to philosophic views of greater or less fulness and lucidity. But even the greatest fulness, with the keen eye for Nature which belongs to developed cosmologic insight (such as characterize the mythologies of the classic nations), can scarcely be regarded as having ever been a blessing in themselves. To the distant observer the richly coloured and realistic circumstantiality of those mythologies appears as an enviable filling of man's whole life with thoughts which unceasingly connect all its trivialities with the grandeur of the supersensuous world, and it exalts, in our view, the æsthetic importance of those nations with whom it is found; but these nations themselves were hardly ever led by the natural-philosophic element of their religion to any useful progress in life and humanity, but often enough to great errors and to a useless squandering of human powers.

Observation of Nature easily leads to a conviction that there is some supersensuous power which rules events, but no observation of Nature teaches moral truths. It can teach that the destruction of every individual may have its significance in the plan of the whole; that from every life that is trampled out another life may spring; that all the powers of Nature in an unceasing cycle may combine in the continual production, destruction, and reproduction of phænomena in never-failing regularity; but with all this it leaves wholly undecided whether indulgence towards others and sacrifice of oneself, or conversely trampling upon others and asserting oneself, is that to which we are morally called; as a conscious prolongation of the course that Nature unconsciously takes, the one mode of action has as good a claim to consideration

as the other. That which is, does not enlighten us concerning that which we ought to do, unless we know beforehand what meaning we ought to attach to that which is. But how this ambiguous world of phænomena is to be taken and understood by men, whether the way in which it is interpreted and used will be a blessing or a curse, is determined by the mind which man brings to it—by the degree of civilisation which the moral influences of society have enabled him to attain, and upon the development of which Nature herself (not as instructress but as the sum of conditions promotive or obstructive) undoubtedly has an important effect.

If social conditions have provided but meagrely for the cultivation of the moral consciousness, men must be destitute of standpoints and conditions necessary for taking a coherent and comprehensive view of Nature and of the order of events —a view in which there is room for the accommodation of individual contradictions. And being thus destitute they must lack also that wholesome ballast which is capable of preserving imagination from yielding unresistingly to the impressions produced by individual striking phænomena. In such a case the unstable mind is driven by the incalculable influence of fortuitous combinations of ideas, first of all to this or that interpretation of phænomena, and then to such or such maxims of conduct—perhaps to maxims of foolish soft-heartedness or perhaps to others of barbarous cruelty. And this danger is a permanent one; it reappears under some fresh form at every stage of civilisation. It is a danger that threatens even when a vigorous and developed intelligence that has long been in possession of many-sided experience and of various standpoints from which to estimate things, can no longer be imposed upon and led into narrow-minded mistakes by isolated phænomena, being able to rise above many individual contradictions to a consciousness of the all-pervading and eternal harmony of the universal order. For even supposing that it does thus rise, yet a just perception of facts does not of necessity involve a just estimation of their worth. On the contrary, the higher our trains of thought soar in their

progress to ever wider generalizations, the more unstable does their equilibrium become; it needs but a slight alteration of mood and at once our mobile imagination beholds the same facts in a light which altogether transforms them, without their having themselves undergone any change. When this happens, nothing but a thorough and established moralization of life can furnish a counterpoise of sufficient weight to withstand the effect on conduct of the wild theories into which speculation is only too easily drawn, in its attempts to take a comprehensive view of the universe. And finally, even when reverence for the content of moral Ideas, undisturbed by any doubt, rules the general mind and is the point from which by common consent all attempts set out which aim at following by faith the course of the world into regions which no experience can reach: even in these times of religious culture in the strict sense, the old danger will always lurk in men's preference for a cosmological construction of philosophy. With the voice of conscience and with that which we venerate as revelation, we build up but very tottering bridges, which are none the more secure because we use them with presumptuous confidence as a means of obtaining untrustworthy glimpses of the construction and articulation of the universe as a whole. Still more untrustworthy will be the conclusions as to practical life which men deduce from cosmologic philosophy, as though it afforded a representation of reality which might be relied on. The aim of such an application of these conclusions would be to deduce from a supramundane metaphysic of the universe holier precepts and aims for human guidance; while perhaps on their account silence would be imposed upon the simple absolute commands of conscience which have no pretensions to universal knowledge.

If therefore the name of religion is to be exclusively reserved for that form of spiritual activity which regards a recognition of the divine order of the world and the subordination of our life to it, as conditions of salvation (and it is in this sense that religion is commonly opposed to unbelieving morality), we should be expressing but a part of the truth in

lauding the improvement of the human race as attributable to the influence of religion; we should have equally to admit that the progress of humanity due to the action and reaction of society and to the development proper to secular life, on the one hand has supplied religious belief with new questions and subjects of consideration, and on the other hand by its quiet, obstinate, and ever present resistance has blunted the edge of those injurious extravagances into which the world-interpreting, world-creating flights of devoutly inspired speculation were apt to run.

§ 3. By what thread of connected tradition or by what recognisable law of progressive development those successive forms of religion may have been determined which have gradually arisen among the civilised nations of our hemisphere, are matters which I leave undecided, considering that they cannot be exhaustively discussed in this place. And even the hasty survey which I propose taking for the confirmation of the foregoing remarks, must be curtailed.

Where social life is very little developed and reflection lacks the breadth of view which can be given to it only by a stirring life and constant intercourse between one's own thoughts and those of others, the foreshadowings of a supersensuous world which may be called into existence by even the most everyday occurrences, remain chaotic and incoherent. Fetich-worship, with very natural confusion, while it reverences the mysterious power residing in every object which happens to strike the senses, neither identifies this power with that in which it inheres nor clearly distinguishes it therefrom. It is not this lack of conceptual clearness which causes Fetichism to take such a low place among the different forms of religion, but the absolute indefiniteness of its ideas concerning the nature of the supersensuous power which it venerates. It regards this as nothing but a certain degree of mysterious indeterminate capacity, not any fixed kind of volition or activity, susceptible of specification. Such power is to be found in every object, but any one object may possess it

in a higher degree than any other; for men to try, by prayer and sacrifice, to make it favourable to them is but a transference of natural human action in reference to human wills; in the nature of the incalculable demon itself there is no intelligible ground for even this most simple worship. The same poverty of thought makes it difficult to estimate the gain to life of presentiments of immortality. The idea of the absolute annihilation of anything which has once been observed in the vigorous exercise of perceptible activity is as incomprehensible to undeveloped thought as the idea of anything's arising from absolute nothingness; belief in the continuance of the soul after death is more natural and more ancient than the belief in its annihilation, which is among the earliest mental products of a somewhat advanced civilisation. But the poor philosophy of the early stage is equally unable to assign a content to the continued existence in which it believes and to its notion of a supersensuous power in things; where future existence is not conceived of as a copy of earthly life, the soul is supposed to join the ranks of the obscure powers of Nature; it continues to exist as a ghost, that is, with the general attributes of the spiritual life of man, but without humanly intelligible ends. Such unsatisfying ideas neither can become sources of moral convictions nor do they readily admit of being connected with such convictions; but the ideas themselves would have taken a very different turn if a greater degree of moral cultivation had led men to seek beneath the surface of phænomena something other than vague forms of life and powers different from our own. What is taught by fear and sympathy can at any rate, as contrasted with such a faith, be developed to practical precepts and the rudiments of worship; but what such precepts and such rudiments shall be is decided by the purely accidental course of unbridled imagination and the bias of temperament; they are apt to run into superstitions deformed by witless sorceries and bloody abominations of sacrifices to the dead.

One of the errors that seem to us most strange is the paying of divine honours to animals, and yet there is an

intelligible cause for it in dawning religious feeling. Social intercourse teaches men to know one another in a wholly secular aspect; they find each other busied with small and changing and contradictory interests which are perfectly intelligible and have nothing of the obscure grandeur which imagination admires in those natural forces which work unconsciously. When man has once begun to contrast himself and his fellows and all his human interests with the world and that strange power residing in it which constitute the first object of his confused reverence, he can find nothing in which this power appears more expressively than in the activity of the animal kingdom, which in all its manifestations impresses us the more on account of its voicelessness and our inability to understand the extraordinary instincts which it displays. It is true that without some flights of imagination this contemplation cannot give any definite content to our notion of the supersensuous, but at any rate it views this under the exalted notion of a spirit-life that broods over strange ends, unintelligible to us. We can see that while men lived a life in which attention had not as yet been attracted from physical existence by a multiplicity of peculiarly human interests, such considerations might easily give rise to the idea of transmigration of souls, an idea which afforded an abundant field for the exercise of ingenious comparison and constructive imagination. There is no doubt that at one time men's minds were seriously possessed by this idea, and that in consequence a vast amount of human activity and attention were squandered on wholly unmeaning and fictitious objects. The belief was not refuted by science, but died out from its own lack of interest, as there grew up around it a civilisation which has its centre of attraction in the worth of social and moral relations. At present we hardly think of animals except as objects of domestic economy, or of natural history, or as ornaments in a landscape; that they have a multiform mental life allied to our own, is a proposition which we sometimes timidly advance as a probable conjecture. And just as indifferently do we turn away from all the un-

remembered past which preceded our earthly existence; as to what lies beyond this we refuse material analogies in as far as our abiding need for some sensuous representation of the supersensuous will permit.

In every case in which fully developed civilisations have culminated in comprehensive religious systems, in Egypt, in India and in Western Asia, investigation takes us back to the grand all-encompassing phænomena of the heavens as the point of departure from which religious ideas have set out. Far removed beyond the reach of earthly contact, the heavenly bodies for that reason stirred imaginative forebodings with their far-away brilliancy, but they attracted attention still more by the regularity of their movements; the reverence paid to them applied not only to their gladdening light, but it was also the first homage that was offered to the notion of truth, and law, and order, as the genuine content of the supersensuous. But this germ which promised so much, seems to have come to nothing as far as the development of religion was concerned.

Egypt owed to it noteworthy beginnings of astronomic science, and an attempt to construct cosmic order by connecting it systematically with natural forces that were personified as divine beings. From the cultivation of this wisdom (on which the ingenuity of the priesthood was exercised) no gain accrued to life—nothing but the burden of a ceremonial worship, which at best could only serve to keep up a general feeling that it was being offered to supersensuous beings, but the symbolic significance of which was unknown to the people. On the other hand, the wonderful phænomena of the Nile valley, connected as they seemed with the course of the heavenly bodies, must have directed general attention to the regular activity of the natural forces which in steady rotation alternately call forth and destroy life. The contrast between generative and destructive power not only aroused mystic speculative reflection, but was also the subject of popular mythology and of many solemn rites. Still the whole sphere of religious thought does not seem to have been dominated by it to such an extent as in Babylonia, where

imagination was carried away by similar incentives to the most extravagant worship of the universal generative power of Nature. In Egypt alongside these cosmological myths, and connected with them in a way that to us appears merely external, there was developed a religious view of human life. This view was characterized by a conviction of the immortality of the personal soul; combined with the idea of a judgment which should summon the spirits of the good to a life of blessedness, and condemn the wicked to infernal punishments and the purifying penance of passing through earthly life again under the forms of men or beasts, this system of doctrine most happily succeeded in keeping itself from being overgrown by the speculations of natural philosophy, and brought together those elements of moral conviction which the full and various life of the oldest civilised nation had developed.

This was a comparatively healthy realism, which, though it attached human existence to an all-embracing cosmic order, left the determination of the ends of human life to the development of life itself, and not to cosmological speculation. The excess of such speculation in India led, on the other hand, to an idealism which, while it took away all meaning from the world, took away also all meaning from human life. Here imagination turned from the primitive worship of the heavenly bodies, not to bring into prominence their order and regularity, but to lay one-sided stress upon their changeableness and transitoriness, and emphasized with fatal ingenuity the necessity of one eternal primal being, which we should conceive of wrongly if we imagined it to have any definite content, and most wrongly if we imagined such content to be continuous eternal rest. Indian speculation found it as difficult as later philosophy has done to get back from this indefinite being to the world of reality. It avoided those mythical genealogies of divine beings which in other cases fix the successive steps of the creation of the world, while at the same time the failure to explain how and by whom this progression was accomplished is hidden

by the imagery. Thus it came to pass that our want of insight into the cause of the origin of the world was taken to indicate an origin which had no cause; the primal being, misunderstanding its own yearnings, is represented by this line of speculation as developing into a world which is illusive, and which only seems real to its own individual members. An appearance which arises without cause, and which appears in orderly fashion to its own constituent parts, is but another name for a reality which is as yet unexplained; hence this mode of representation is metaphysically inadequate. On the other hand, it contains a decided expression of opinion as to the *worth* of the world; the world is a mere appearance, not because it is not real, but because it is not what ought to be. As regards that which ought not to be, man's only duty is the effort to remove it; in the universal nothingness of the world, the condemnation of which is unceasingly expressed by the primal being itself in the constant destruction of all created things, human life has no worth and no special ends; salvation lies only in turning away from it, in withdrawing oneself from the influence of that world of appearances, which is what it ought not to be, by annihilating all passion, and finally all ideas and all thought, and returning to the painless condition of the unconscious primal being. This despair of life is not to be regarded as resulting from speculative error in interpreting the universe; it must have proceeded from psychological causes, from the general tone of mood and feeling which we can no longer analyse, for it pervaded all Indian thought and even practical life with a power which belongs to no doctrine that is not in harmony with the popular mind. Even Buddhism, after it had sought to free men's minds from the fetters of Brahmanism, of ceremonial service, of distinctions of caste, of the horrors of transmigration of souls which threatened ever renewed tortures of existence, ended with the same thought and aimed only at facilitating the return to nothingness. The power which this belief exercised over men's souls is shown by that inclination for an ascetic life which inspired such countless

numbers with an enthusiasm for penance and unheard-of self-torture. The great mental endowments of the people were expended uselessly under the guidance of such views. The development of knowledge was insignificant; notwithstanding great refinement of feeling, morality did not recognise the unconditional sacredness of goodness; strictly speaking, it knew nothing of sin, but only of ill, which is the cause of mental disquiet; hence all virtue consisted in cultivating skilfulness in escaping from this ill. Finally, in course of time, like all other similar extravagances which, becoming unable to maintain their original elevation, produce some mechanism of custom as a residuum of enthusiasm, Brahmanism and Buddhism (and the latter in the end to a greater extent than the former) became secularized into the utter aimlessness of monastic life and ceremonial pomp.

Thanks to a more robust mental constitution, the cognate Iranian races obtained better fruits from the germs of religion which were common to them and to the Indians. Zoroaster's teaching added a dark shadow to the light which men worshipped; here, the delusion by which the primal being was supposed to have been confused, and misled to create the world, was replaced by the darkness of an evil principle which limits, but only apparently, the just and true development of the good principle of light; at the end of that conflict between the two which fills the world, the evil will succumb to the kingdom of light, and then nothing will be except what ought to be. In this conflict man has to take part. The natural symbolism, which in all times has made Light the image of the Good, and Darkness the symbol of Evil, allowed of this hurtful, equivocal, ill-favoured, natural phænomenon being assigned to the realm of Ahriman, and (while the final victory of Ormuzd in the future was held to be certain) also allowed a multitude of practical precepts, which prescribed intelligible ends of daily action and reasonable moral obligations, to be connected with the clear dualism of principles which was adopted. But neither did this form of religion escape the fate of having its great

thoughts buried under a superfluity of external forms by the ceremonial pedantry of a growing priesthood.

§ 4. We encounter other phænomena on European soil. The Greeks as well as the nations above referred to felt something divine in natural phænomena before they recognised it in the law of conscience. But their thoughts were absorbed neither in the abyss of universal being in which all form disappears, nor in considering the intelligible secrets which each particular in its own place was called upon to indicate; what they took hold of and clung to was the beauty of the whole and of each of its parts; the more their civilisation advanced, the more did that didactic part of the content of their myths, which at one time was common to them and the Eastern races with which they were allied, fall into the background beside the characteristic beauty with which they endowed their divinities and the world they inhabited. Calm, steady development, the domination of motley multiplicity by the unity of one ever-repeated rhythm and all the fair proportion, clearness, and purity which the world of the senses presents to us—these are not in themselves moral concepts, but they are modes in which things exist and comport themselves, which we strive first to realize in ourselves as conditions or results of morality and afterwards to find again in the external world. Hence favourable natural surroundings from which such impressions may be obtained, may contribute their part to the taming of wild impulses and to mildness and beauty of disposition, but the larger share is undoubtedly contributed by a successful development of moral life in society; it is this which first gives susceptibility to and interest in the beauty of the external world. And this it was which early withdrew the attention of the Greeks from the significance of their deities in Nature, a subject the consideration of which has always proved unfruitful as regards religious development; their imagination substituted for the vanishing mysteries of this secret meaning the obvious and expressive beauty of ideal forms, the characteristic variety of which reflected the infinitely higher secret of the manifoldness of mental life.

This representation of the world of gods (which was not accomplished without frequent misuse of poetic imagination) in making them human made them at the same time moral. As often as the popular conscience recognised the beauty and urgency of some new moral obligation or some new ethical Idea, men tried on the one hand (from the natural desire to understand that which is greatest in the world as being also the most perfect) to assure to the divine world the possession of this beauty as a side of its wealth that had hitherto remained unknown, and on the other hand they tried to raise recognised duty above the fluctuations of individual judgment and of variable moods by deducing it from the will of the gods. Thus the Greeks improved their faith by the results of living culture; their most profound poets struggled to infuse into the transmitted content of this faith their consciousness of sacred truths and precepts, thereby deepening that content. And it was just on this account that at last the feeling became overpowering that the original basis which men sought thus to ennoble was inadequate; they found that all which gives worth to human life may indeed be externally connected with the names of the mythic gods, but has not any essential dependence upon them. Then there came into honour the simple name of God or of the Divine, used to indicate the true source of what is worthy, to which source the living longing of the nobler minds turned back in anxious search.

It was the religion of individuals and not of the people that came to this conclusion; the popular religion which at last fell wholly into ruins, never attained the coherent unity of the religious systems of the East. Mythology arose neither from a single impulse, nor from impulses that worked on uninterruptedly. Notions that had diverged somewhat even in the Asiatic home where they had their birth, had become still more different in the European settlements in which the various tribes lived on for a long time in isolation from one another; migration and intercourse with other peoples had introduced foreign ideas concerning God; local circumstances

had reduced many an image of some divinity which had formerly been the same for all, to various different embodiments; and finally, all such notions had early fallen into the transforming hands of poetry. All this collection of characteristic ideal figures, consisting of symbolic personages from ancient national legends and from the poetry of untrammelled imagination, had grown to such vast dimensions that perfect agreement about them had become unthinkable, and dogmatic instruction as the foundation of a settled confession of faith impossible. The world of the gods in its boundlessness stood over against consciousness as physical Nature had stood over against it from the beginning; the latter, too, is not known in all its parts by any man, but its main outlines are known to all; each has a limited region within which he lives, and the peculiar worth of which he understands from actual experience. So in the wide world of mythological divinities each had a special circle of tribal gods; and to honour these with traditional forms of worship was enjoined by the state, the family, or some ancient religious guild, on all who wished to be reckoned as belonging to it. But there was no church to guard pure doctrine or to see that it was followed, no established priesthood with any power over consciences. The priest was the expert who knew the secrets of the particular sanctuary in which he served and lent his aid as mediator to the pious worshipper who came with offerings. Wherever there was any censorship of religious opinions, it was exercised by the political community; the national worship of the gods, upon which, as upon a primitive sacred treaty, the welfare of the state was supposed to rest, was defended by the state itself, on the one hand against the intrusion of immoral foreign worship, and on the other hand against the disintegrating enlightenment of home-born philosophy.

Before the moral deepening of the idea of divinity had made it possible for men to pay unceasing reverence to this idea by their mode of life, prayers and sacrifice and songs of praise continued here, as in all cases, to be the only expressions of gratitude, of spontaneous admiration, and of awful

fear called forth by the gods, whom men regarded as beneficent, or exaltedly beautiful, or finally as threatening powers of Nature. A mixture of these feelings was the frame of mind which the Greek conscience continued to require as piety towards the gods. It is a long step from this frame of mind to the definite actions by which it manifests itself in men's lives. The will of the gods men did not know; to reverence it while yet unknown, and also to regard the scattered revelations in which it now and then made itself known; not to be in any way haughty or presumptuous, but to maintain a moderate frame of mind, being conscious that the guidance of all things is in higher and mysterious hands —such was the sole further development that the Greek conscience was able to give to this εὐσέβεια. Mythology could not teach any more pregnant connection between human life and divine decrees; it had too entirely lost all remembrance of the comprehensive world-history with which human history had been interwoven by oriental imagination; for it everything was but a radiant present, the echoes of whose past lived only in a few obscure legends, and which saw before it no unfathomable future, nothing but its own steady uniform continuance. Under however glorified an aspect men might regard the gods, they yet never regarded them as the creators of the world; they continued to look upon them as conditioned beings, the fortunate firstlings of a hidden creative power; as ideal men and powerful helpers of their weaker brethren in difficulties which yet even for themselves were still difficulties. And for this very reason the moral deficiencies which were blots in their representations of their gods, when the natural symbolism of the early legends had been transformed into histories of personal beings, did not disturb the sincerity of their reverence to the extent which might otherwise have been expected. These pictures of the gods lived in men's consciousness as expressive and characteristic representations of natures, some of which were noble and some ignoble, but all having the freshness and reality of life about them; and the gods themselves were regarded as superhuman

combatants who had been our forerunners in the battle of life, forerunners for whom men felt the same kind of devoted and confident attachment that soldiers do for their leader.

In the external forms of worship the Greek mind preferred the solemn beauty of mystic elevation, and avoided, except in a few points, the sensuous enthusiastic passion of the worship of God as practised by the Asiatics. Many of the customs handed down from antiquity had become unintelligible to the people. Although every divinity might be called upon in any locality, yet the more solemn worship of each was connected with special places where help had been vouchsafed to men on particularly memorable occasions, the recollection of which was intended to be preserved by significant ceremonies, yet which notwithstanding did not escape oblivion. Thus sacred ceremonies remained attached to particular places of worship, as being of traditional obligation; almost like the peculiar feudal obligations which vassals of the Middle Ages owed to their feudal lords ever after the occurrence of some forgotten adventure. Yet the Greeks were impelled to maintain conscientiously the integrity of these ceremonies by that piety with which they believed that they ought in all cases to honour the uncomprehended will of the gods.

And uncomprehended as to its final secrets did this will ever remain to the Greeks. There is a mild, pleasing, unaffected naturalness in their religious views; they do not, however, set up a kingdom of heaven in opposition to the world, but exhibit the beauty of a moderate, serene, peaceful enjoyment of life springing from a judicious and intelligent appropriation and improvement of earthly conditions, in contrast to the splendour of oriental despotism and unmeaning luxury. It was only this which Solon set before Croesus when he declared the peaceful life of Tellos, or the happy end of Kleobis and Biton cut off in their youth by a blessed death, to be preferable to the renowned good fortune of the Lydian king. There is no reference in his words to a happi-

ness which is not of this world, or to a peace of conscience which can outweigh external misfortune. Solon urgently admonishes the king to think of the end, not as though he were then to be judged according to the worth or worthlessness of his life, but because no man is truly happy who is not happy to the end. According to Greek ideas, a disaster quite late in life mars all a man's previous happiness, just as in art the beauty of a whole work is spoiled by failure in the smallest detail. These remarkable people even tried to make the end — which they regarded as the final end — artistically satisfactory; any connection of the whole life with a future beyond it was never a dominant thought with them. It may be that in the religious mysteries of the Greeks there were handed down some ancient Eastern teachings as to immortality, and certainly cultivated Greeks were not unacquainted with the idea of a continued existence, such as lightens the hard life of so many rude tribes. But if this belief had had any deep-reaching influence, we should know of it, without any special proof, through the immediate impression produced by Greek national life as a whole. This impression, however, testifies decidedly to complete satisfaction with the present world. The wide gulf between the Greek view of life and that of Christianity cannot be filled up by bringing together isolated expressions of which we can never be sure whether they gave voice to a fixed and hearty belief or whether they were mere poetic images without serious meaning, which served the æsthetically cultured people who used them as mere ornamentations of life.

§ 5. The noblest representatives of Greek speculation had learnt to know God as the first and unmoved mover of all things, as the operative essence of the Ideas of the True, the Beautiful, and the Good; but to the Hellenic mind (of which the one-sided reverence for knowledge was kept up by its consciousness of scientific achievements, and to which sin was only intelligible as error) the Supreme Good was without any content of its own, and melted away again into Beauty and Truth. However great the interest with which we may

continue to regard this final religious outcome of the classical world, which is great regarded as the fruit of human investigation, yet it is but as a modest rivulet compared to that rushing river of consciousness of God which, from a long previous period, had swept through the life of the Hebrew people and overflowed in their sacred poetry with a power compared to the assured reality of which the highest flights of Greek enthusiasm seem but as mere problematic conjecture.

Learned investigation may discover traces of foreign influence in individual features of legend and custom, and in the artistic and ceremonial development of Hebrew worship, but the essence of their religious philosophy was wholly withdrawn by the Israelites from the influence of heathen culture, with some aspects of which they were in long-continued contact. Those principles of natural philosophy which smothered the religions of the East with their rank and injurious growth are almost entirely absent from the religion of the Hebrews; here the motive-power of development is to be found in ethical Ideas, which, though not indeed alien to the life of other nations, were not the source from which their religious notions were derived. With what ingenuity must the Egyptians have determined the succession of the cosmic powers to which the order of the universe is due—if, that is, we can trust the equal ingenuity of their interpreters. But for religious life it has all about as much worth as the infinitely more trustworthy teachings of modern geology concerning the stratification of the earth's crust. The Mosaic history of the creation (to which only a strange misunderstanding can seek to attribute natural-historical significance) is distinguished by its contempt for such cosmological speculation. It does not make any one phænomenon a basis for the development of any other; with the greatest uniformity it repeats in the case of every creature that God made it, and in describing the series of creative acts it hardly thinks enough even about observing an order corresponding to the interdependence existing between different parts of the material world. It was sufficient that God made everything, and that everything as He made it was

good; sufficient that man was regarded as the crown of this creation, and the creation itself as the garden in which he was destined to live after the likeness of God. Nor was any higher place assigned to Nature later; as regarded the one living God, natural phænomena had no meaning but as signs of His goodness, His almighty power, or His wrath, and as such, poetry depicted them in the most striking colours; but except in hasty sketches, imagination never busied itself in attempts to see God's being symbolized in the order of Nature, as though such a manifestation were necessary to Him, or could suffice Him. But this God who had no serious ends in Nature itself, but used it as the scenery of a magnificent drama, had special designs for the human race; while the cosmographic horizon of the Hebrews was narrowed to almost idyllic dimensions, and all interest in Nature as a whole was relinquished with indifference, the promised land was raised to the sacredness of a special sphere of divine influence, and became the stage on which a course of action and reaction between God and man was played out.

Attention being turned away from the structure of Nature itself, the danger was avoided which had misled those religions that had a cosmological foundation—the danger, that is, of regarding first natural ill and then moral evil as necessary constituents of the cosmic order, and as metaphysical consequences of the Divine Nature. According to the Hebrew faith God was wholly good, and neither in Him nor in the creation as it came from His hand was there any seed of ill; it was human freedom which, perfectly unfettered and unconstrained by any metaphysical fatality, brought sin into the world, and, as its punishment, death and the ills of life. This kingdom of evil which had now arisen was not something which must be necessarily thought as a part of the world; it was something which need not have been and which ought not to have been; the command to be holy as God is holy applied to man, and applied to him as one which it was possible to fulfil in the fear of God and of His law. The doubts to which the human mind must always be led by

the consideration of these most important matters, were not theoretically solved by the Hebrew faith; but their suppression gave to life for the first time a thoroughly religious foundation. Moral obligations, conscience of which is everywhere developed by social action and reaction, appear here consolidated into a Will of God, which has to be fulfilled and glorified, not only by the individual in inward disposition and outward works, but also by the whole nation in a theocratically regulated life of the community; the national history is the account of a continuous intercourse with the God of righteousness, who has attached promises of favour to the sanctification of His will, and who punishes obduracy towards it.

Neither did the external destiny of the nation bring the fulfilment of what had been promised, nor did the people find in conscience the evidence of its own uprightness; the end of the struggle carried on in the attempt at self-justification towards God lay yet in the future, and was anticipated as the temporal glory of the whole race, which, with somewhat obscure hopes as to the eternal significance of the individual soul, felt itself called to constitute a kingdom of God upon earth. Christianity regarded itself as the realization of the predictions which seemed to point to this, but it was not recognised as such by the Jews; in the view of Christianity all which men had hoped with regard to the Messiah was found realised in deepened significance in the person of Christ —the crowning prophecy of a final revelation, the high priest's office as mediator by means of sacrifice (sacrifice and mediator being one), and the sovereign power of Him who is to be King over the Church in all ages.

§ 6. If we separate for a moment that which the doctrine of the Christian Church does not allow to be separated, namely that which is revealed through Christ from faith in the historical fact of His revelation, we shall see that the former contains exclusively religious truth conveyed in a form of expression which is also exclusively religious. The order of visible Nature is not a subject of its interpretation and explanation; pervaded as a whole and in all its details by the

foreseeing and preserving will of God, it does indeed in its totality form the background of our life, and to it the mind may appeal when seeking some witness to the truth of its belief; but to know its construction and its articulation does not belong to the one thing needful. In the ordinances of the Law even Judaism had given to natural reality a significance not its own; although it insisted on holiness of mind, it still saw in the performance of actions a service which was in itself of some significance, and without the doing of which the world would lack that which human action was intended to contribute to it. From this sometimes outspoken and sometimes hesitating reverence for works Christianity turned away, caring exclusively for man's spiritual temper and the sanctification of this; what is primarily to be aimed at is not any particular state of things, nor even any particular state of mankind, revealing the kingdom of God in *external* ordinances by the harmony between men in different orders of society—but it is the new birth and the transformation of the individual human being, whose immortal spirit is to become the temple of God. It was only the chosen people as a theocratically regulated whole which Judaism had regarded as worthy to be such a temple. Hence Christianity developed directly social theories as little as it did cosmological wisdom; but in the new inner life that it demanded and made possible was the essential germ from which might be developed not indeed knowledge, but the renovation of man's nature, not a definite form of social relations, but a capacity of using and modifying any existing state of things in the right way.

If the thought of the merely conditioned worth of all earthly life lay at the foundation of this peculiarity of the Christian revelation, whilst the earlier religions of the East regarded this life not as a preparation and a school, but as occupying the place of real existence in the plan of the world, it might have been expected that at any rate the connection of earthly reality with the secret of the divinely ordered universe, of that which is with that which ought to

be, would be all the more clearly developed by Christianity. This expectation would be deceived supposing its object to be an enlightening knowledge of the construction of the supersensuous world; but, as the history of centuries shows, completely fulfilled if it ask nothing more than certainty as regards the blessed significance of the connection which that world (whatever its definite form may be) has both in itself and with earthly life. Revelation speaks of a Personal Spirit who is Almighty Love, but it is not absorbed in answering those questions concerning the metaphysical form of His existence which human knowledge raises in order that it may understand this after its own fashion; it describes that aspect of God which He shows to men, but it merely indicates without attempting to analyse that glory which only the angels in heaven see. It regards the world as the creation of this God, but with regard to its beginning and its end, it makes no essential addition to the knowledge possessed by the ancient faith; it is pervaded by belief in the immortality of the individual spirit, but intrusive questions concerning the nature of future existence it declines to answer; there is much to be told which we cannot bear yet. For just in proportion as this future existence is more certain, the less necessary is it to try and mature beforehand upon earth the fruits of the higher knowledge which it will afford us, and the more exclusively necessary is it to prepare ourselves for this great future. Thus it may appear as though revelation really revealed but very little, and in truth in a doctrinal point of view it is neither extensive nor circumstantial; it does not enrich science by an abundance of individual truths, but establishes a new life upon a foundation of truth, which is not considered to be possessed if it is merely known, but only when it pervades the whole man as the prevailing tone and temper of his life.

To characterize this essential germ of Christianity more in detail than we have attempted to do in our short survey of the course of history, is not our present business, but we may recall some aspects of its relation to other philosophic views.

Human nature is so similar everywhere, that wherever there is a sufficient amount of the social intercourse necessary to develop its capacities, the moral convictions that are evolved are similar in all essential points. But at the same time, the faculty of drawing from our own premises all the conclusions which they involve, and the effort to attain complete harmony of character, are so deficient in us, and (being the result of growing reflection) appear so late, that nearly everywhere in human civilisation, that has grown up spontaneously as national culture in practical life, we find between coexistent moral principles obstinate discrepancies, to which men are blinded by habit. Therefore, on the one hand, it may easily seem as though Christianity had brought no other moral ideals into the world than those which mankind had already discovered for themselves; but, on the other hand, it will be found that its efficacy was not expended in introducing coherence and completeness into the contradictory convictions of heathen ethics.

The ground of all moral obligation is understood differently by it and by the heathen world, which in its rough beginnings was led to moral habits, partly by natural good dispositions, and partly by experience of their usefulness; and when it had reached a higher stage of civilisation felt bound by the obligation of moral commands for their own sake, just as unconditionally as it found itself subjected unconditionally to natural laws. For Christianity the command to do God's will was not merely a comprehensive expression for the content of all individual moral ideals, but it also supplied at the same time a reason which justified, or at any rate explained, their binding power. The ordinary opinion of more or less scientific reflection is that there is here a retrogression as compared with the philosophic view of heathendom, to which the Beautiful and the Good seemed to be obligatory, in virtue of its own power and dignity and not as a law, even though it might be a law laid down by the Supreme Will. The faithful Christian will judge differently. He will admit that he learns the interpretation of the divine

will only from the deliverances of conscience, and will shun the frightful consequences which have always arisen from the admission of any other source of enlightenment; he will not conceal from himself that his conviction lays upon thought new difficulties which are hard to overcome; but yet he will maintain that through it alone is he able to understand the phænomenon of conscience. For it will seem to him simply incomprehensible that through some original and primary necessity there should be laws which have binding power over our actions but yet serve no purpose—serve no purpose because their whole business is to insist upon their own fulfilment and realization, the fulfilment when it has come about being the end of the matter, as though it were some new fact, without any good having been produced that did not previously exist. The Christian seeks to escape this labour in the service of impersonal laws, this mere bringing about of facts; it is only in the pleasure which God has in what he has done, that he finds that ultimate good for the sake of which all moral action has worth in his eyes. If love is the great commandment, then that that great commandment must be carried out for love's sake is a necessary corollary; neither the realization of any Idea for its own sake, merely in order that it, devoid of sensibility as it is, should be put into act, nor the residence of all excellences within ourselves, the egoistic glorification of self, but only love to the living God, only the longing to be approved not by our own hearts but by Him—this, and this only, is the basis of Christian morality, and science will never find one that is plainer, nor life one that is surer.

There is a close connection between this foundation and the fact that with the Christian precepts promises are always conjoined; this, too, is a rock of offence for that quixotism of pure reason which regards its efforts as almost disgraced if the kingdom of heaven and eternal blessedness are offered as their reward. It would be wicked to deny that the human heart is capable of the greatest self-sacrifice, even without admitting to itself that it cherishes a hope of such reward;

for we have no right to doubt the instances which we find in history and in life, or to attribute motives by which these instances would be made more intelligible to us. But while we recognise the merit of that virtue which, in sincere devotion to the moral ideal, prefers destruction to defilement, we regard as incomplete any philosophy which holds that good may vanish out of the universe unrequited, and which lets the joyousness of action be damped by this conviction which can never be in itself a motive to action. Yet indeed it is not merely in order that the universe should be in itself harmonious and perfect that Christianity connects blessedness with moral fidelity as its result; it does undoubtedly also hold forth the crown of life which it promises as the motive which is to confirm and uphold that fidelity even unto death. Can we then contest with those who denounce all Eudæmonism the right to apply this name of reproach to Christian doctrine also, and to prefer to it as more exalted their own teaching which commands virtue and self-sacrifice without any reward? This latter requirement may indeed seem more exalted; but from the sublime there is but a step not only to the ridiculous but also to the inane and the preposterous. And this pedantry of reason runs the risk of taking not indeed the first but the second of those steps, if it is really in earnest. For without a supreme good to which the lesser good would be sacrificed, and as mere continuous labour for the establishment of a definite external condition of things, or of some definite condition of the inner man, in what would our moral struggles differ from any blind activity of natural forces, except in the accompanying but inexplicable feeling that one ought to do something which, when it is done, is of no use to any one? But in fact this step is not taken by that quixotic virtue to which we have referred; it is conscious that at bottom it, too, aspires after a Supreme Good—namely, Self-esteem; and it would certainly give up all moral effort if it were not rewarded by this result. Perhaps it would even be much less inclined than the more open Eudæmonism of Christianity to labour in the service of moral commands if obedience to them

did not enable it to reach by the shortest road, and with the greatest possible directness, that which it regards as the Supreme Good. The distinction, then, is between the proud inflexible Eudæmonism of self-esteem, which is self-sufficing, and the Eudæmonism of humility, which is not self-sufficing, and seeks its Highest Good in standing well not with self but with God, and in being beloved by Him. The sacrifices which Christianity imposes on men in order to the attainment of salvation are not less than those required from them by the more self-sufficing doctrine; but while the latter sets out with efforts to reach that which is sublime, and finds little opportunity of returning thence to what is meek and lowly, the former begins with what is joyous and attractive, and yet mighty enough to produce also what is most sublime. And that this way alone is the true one is an opinion confirmed by a consideration even of those æsthetic ideas upon which our moral judgment is only too dependent. Such a consideration would show us how hollow is all sublimity that aims only at being sublime, and how imperfectly it is conceived when, being carried beyond its necessary relation to an Absolute Good to the power of which it testifies, it is set up as independent. Christianity does not see this good in the mere existence of a world of being and action, regulated according to moral Ideas, but only in the blessedness produced by the enjoyment of this world; and the gospel is glad tidings just because it carries out to this its final logical result the abolition of all reverence for mere blind factual existence, and reveals the hidden priceless jewel of salvation as the final secret for the sake of which all the vast expenditure of creation and human life has been made. It never aimed at being sublime or magnificent; and yet because it is "*glad* tidings" it is also sublime and grand.

By Judaism too and by all heathen religions, the moral commands which life has taught have been interpreted as the requirements of God or of the gods, and they have promised happiness as the result of fulfilling these commands. But the gods of heathendom were too much occupied with

Nature; their care for the spiritual world and for mankind seemed to disappear beside the splendour of their manifestations in Nature, for the significance of which, alien as it was from human life, they demanded reverence; in this world which had no special definite aim, man must strive to win, by careful piety towards the easily offended unknown powers, mere toleration for mere transitory happiness. By the Jews too God was regarded as the Almighty whose acts, whatever they might be, were always righteous, because they were not measured by any higher standard of right; by this Almighty Being blessings were promised as a reward for the submission of mortals, which He eagerly desired although they were as nothing before Him. Not only did Christianity bring into prominence the spiritual world as the only true world and that in which God specially works, but moreover man is no longer as nothing before Him. It is true that the hope of attaining happiness in his own strength is taken from him; but as a child of God even the meanest knows himself to be an object of unceasing care to the Almighty, to whom the manifestation of the glory of external Nature is now regarded as being but a secondary consideration. Traces of all this are visible throughout history. Men had heretofore felt themselves to be individuals of a species, members of the nation to which they belonged, and they had sought in the external order of political society to realize those higher goods of life which the individual could share in only as the joint production of the race. Christianity gave to this characteristic on the one hand cosmopolitan breadth, and on the other hand individual depth. All distinctions of earthly rank and calling disappeared as unimportant in the sight of the one God; the immediate relation to God, which is possible for every faithful soul, gave to each individual a worth of which he could not be deprived, a worth that did not arise primarily from his position in human society, and that was the work not of Nature but of himself. Each man was to his fellow now no longer a mere specimen of the race, whose whole nature was transparent and familiar, but in each individual there was

something hidden and sacred that forbade intrusion. It is of course the fact that under favourable social conditions men had always developed varieties of disposition and indeed wholly distinct types of character; it was Christianity that first supplied a deeper reason than this for demanding respect for the individual by rousing a sensitive regard for personal honour, through the ascription of eternal significance to the soul of the individual man.

§ 7. The full joyous assurance of the truth of these doctrines, the subjection in lowly humility of all one's own strength to the grace of God, the consciousness not only of that imperfection which has a meaning in the cosmic order but also of the sinfulness which always is but never ought to be, the confession of the inadequacy of all one's own deserts, and the hope of redemption from all evil through the love of God which no one can deserve but every one can win—all this is characteristic of a temper of mind which has been regarded by many in all times as that which entitles men to call themselves by the name of Christ. The Christian Church has judged otherwise. It has attached the right to this name to a faith which believes not only in Christian doctrine but also in the whole historical account of how this came to be revealed to the world. The Church holds that Christian doctrine alone does not contain the seed of a redemption which through faith can take root and spring up afresh in every soul in every age; on the contrary, it holds that once and by one act, which belongs not to earthly but to divine history, the work of redemption was accomplished; and that its benefits are to be obtained, not indeed without the living appropriation of the doctrine, yet also not by this alone, but only by this in conjunction with faith in Christ as the mediator of future generations. The moral doctrines of Christianity have encountered no other hostility than that which wickedness and folly have always opposed to all religion, and the best civilisation of the modern world is built upon these doctrines, whether consciously or unconsciously or against its will. But, on the other hand, the demand that the strength-

ening and blessing which they give should be earned by faith in the Bible history, has met with a growing opposition which has called down upon the present age the reproach of increasing irreligiousness.

The most essential point, the recognition of providential foresight as an historical fact, is regarded by this civilisation not with aversion but rather as answering a secret need. Only one-sided habituation to observation of Nature could prefer the thought of a cosmic order established once for all, and according to the unchanging conditions of which nothing is possible except a brief and continually repeated cycle of phænomena, to the idea of a cosmic history, at the different stages of which God does not work uniformly but is constantly adding to the world in genuine action, something new, something which was not there before. A simple natural religious temper will be inclined to conceal from itself the difficulties which this idea of a history of the world involves, or to hope for a subsequent solution of them. If it is once admitted that in the changing destinies of mankind there is a temporal succession of things which cannot be regarded as the mere repetition of previous cycles, it is hardly likely that serious opposition will be offered to the demand that the relation of God to the world should be conceived as one which changes as history goes on—that men should believe God to be nearer to the world at some periods of history than at others, and His influence to have been imparted in a manner wholly unique in some periods of which the temporal limits are clearly defined. But readiness to admit this much is not held to be enough; and when orthodoxy demands either the acceptance of the whole content of the Biblical history, or the recognition of those doctrines which the dogmatic theology of the Church has connected with them, a difference begins which it is impossible to adjust.

The sacred writings will always captivate men's minds by their majesty of content and their grand beauty of expression, the simplicity of which is more effective than any conscious art. But that which primarily hinders us from taking them

quite literally is not the incredibility of that which they report, but the figurative form of their teaching which must be interpreted in order to be understood. And then (since we were bound to the Scriptures only by our reverence for the doctrine which they teach), in the second place, doubts arise concerning the history of those wonderful events the credibility of which cannot be the same to us as it was to the age from which we have received the account of them. It was natural that that age should demand to see the presence of God confirmed by signs and wonders which yet could not have as much significance for them as they would for us. For the thought of an order in Nature connecting natural phænomena according to universal laws, was alien to antiquity, which regarded *every* force that works in Nature as being directly guided by the end at which it aims, and as having the power to realize that end. Hence miracles did not lie as contradictions *outside* the order of Nature, but were actually the natural exercise of a superior power, which, under unwonted conditions of time and space, made its appearance within the sphere where lesser powers were used to work. In this sense the order of Nature was not independent even as regarded the heathen gods; each petty deity could violate that order; even men had at their command enchantments by which they could alter its course; and for this very reason miracles could not be received in those times as convincing proofs of the presence and working of the supreme and the one true God. It is only to the modern conception of Nature that a miracle could seem really miraculous, for this conception recognises no impulse of which the result does not follow necessarily and according to general laws, from a pre-existing collocation of conditions. At the same time, those who hold this view of Nature are in a position to admit the general possibility of miracles in as far as the idea corresponds to a mental need, although they may lack faith to believe in them as recorded in Scripture. For to them too the whole course of Nature becomes intelligible only by supposing the continual concourse of God, who alone mediates

the action and reaction going on between different parts of the world. It is only as long as this concourse takes place in similar ways that it (being then a constant condition in the course of events) does not appear as a condition of change; and as long as this is so the course of Nature seems to be a self-contained whole, that does not need, nor experience, nor admit, interference from without. But any view which admits a divine life that is not fixed in rigid immutability, will also be able to understand the eternal divine concourse as a variable quantity, the transforming influence of which becomes prominent at particular times, showing that the course of Nature is not independent. And this being the case, the completely conditioning causes of miracles will be found in God and Nature together, and in that eternal action and reaction between them, which is not without governing rules, although perhaps it is not simply ordered according to general laws; it is this idea only, and not the idea of complete fortuitousness and arbitrariness, which the mind frames of a miracle when it would see in it an object of reverence. But the recognition of this general thought does not suffice to lead Natural Science to a recognition of the reality of miracles in the form in which religion generally demands it. So immeasurably preponderant is the weight of all experience in favour of a steady development of all natural occurrences, each step preparing the way for that which succeeds it, that even this general admission prepares the mind to believe only in a noiseless, ceaseless working of God in Nature, not in sudden interruptions of the established order by occasional interferences of divine power. Such a belief could only arise if the ideal significance of miracles in the system of the universe were sufficiently clear and important to cause us to regard them as a turning-point in history, for which the efficient forces of the universe had always been preparing unperceived.

And the wonderful events which glorify the life of Christ in the sacred writings would certainly in themselves give rise to this thought if their physical reality were not made dubious

to us partly by the change in men's conception of Nature which has occurred since Christ's time, and partly by the way in which we take the spiritual meaning which the record of these events is intended to convey. While the earth was regarded as a flat disk, and the visible heaven above it as the abode of God, it was possible for the ascension into heaven to appear to men's minds as a real return of the Divine to God; but since astronomy has taught us that the earth is a sphere surrounded by immeasurable realms of homogeneous space, we fail to see what intelligible goal the upward ascent of Christ could have. In an age that could hardly distinguish between the sensuous and the supersensuous, men might regard the bodily resurrection of the Saviour with reverence as a guarantee of their own immortality; but to us this reanimation of the body is not an object of hope; if it were really to happen, it would only secure to us the continuance of this life during the existence of the body which it animates; what would really give us comfort would be some proof of a continued life of the spirit after its return to that invisible world by which the visible world which we inhabit is mysteriously surrounded. Rationalism in interpreting these circumstances, which are described to us as external facts, as visions of those who describe them, has overlooked the point which can here give more worth to visions than to actual external facts. Rationalism supposed that out of mere psychological trains of ideas, there arose in excited minds fancies due to memory and subjective conditions, which had nothing objective corresponding to them; the very thing that it had to take account of was this spiritual world which though unseen is everywhere, and in which that which has no actual corporeal existence is present and none the less real. Between this world and the world of sense, actions and reactions might take place which are foreign to the ordinary course of Nature; and from these, which are true, real, living impressions upon the soul of something divine and actually present, those visions might arise, being apparitions not of the non-existent but of something really existent, and (as the direct inward

action of the deity) not mediated by help of the course of physical Nature, which has no independent worth, or by disturbances of that course which are incomprehensible to us. The significance of the resurrection lies not in this, that the soul of the risen person now as heretofore inhabits a body which is visible to the eyes of men, but in this, that without any such mediation, his real living presence, and not the mere remembrance of him, takes hold of men's souls, and appears to them in a form which has greater strength and efficacy of influence than the restoration of the actual bodily presence would have.

But to the religious frame of mind from which such attempts at explanation arise, the prosecution of them to any great length is naturally repugnant; it seems impious to make that the subject of theorizing ingenuity which, when received uncritically, never fails to produce a deep impression, but which critical analysis can never bring to certainty in detail. Such awe is not aroused by the dogmas in which in the course of history the content of Christian faith has come to be expressed. The human mind will continually be forced to renew its attempts to grasp and retain in scientific form the truth which it has believingly appropriated, in order that it may maintain this truth against unbelieving civilisation, and that it may satisfy its own cravings after unity and clearness of philosophic view; we see this work of human speculation in Dogmatic Theology, which is respectable on account of the earnestness of its efforts and the connection it establishes between all earthly life on the one hand, and the kingdom of heaven and the divine order of the universe on the other. Yet this dogmatic theology, as being the antiquated ecclesiastical philosophy, is subject to criticism, as is also every fresh attempt at a philosophical explanation of the universe. The content of this dogmatic system has become alienated from modern civilisation (which, owing to its great advances in secular matters, has grown careless of religious interests), and is frequently regarded by it as a fabric built up out of traditions, having no root in reality and no significance for

human life; a less hostile consideration of the matter would speedily show that, on the contrary, dogmatic theology is concerned with but few merely subtle inquiries; it deals principally with serious and weighty questions, which our civilisation may indeed seem to get rid of, but to which we are led back by every searching reflection on the destiny of man and his relation to God. But with equal plainness we may say that dogmatic theology has neither succeeded in giving, nor indeed attempted to give, to these questions any answer which cognition can accept as satisfactory; it formulates in its tenets the burning and inextinguishable interest which we take in these great problems, and expresses without satisfying our craving for enlightenment.

It would be a misinterpretation of this avowal of dissatisfaction to consider that its cause is to be found in the demand for an explanation of the possibility and process of realization of something which in itself surpasses the powers of human reason to elucidate, and to require in place of this presumptuous demand the faith which is lacking; for faith where it exists does not find that its own content can be embraced by dogma. Faith does not require explanations, impossible to be given, of how things come about, but it must require the clearest determination of *what* it is which dogmatism presents as the fixed and central truths towards which the vague yearnings of faith itself gravitate. And this is just what is not given; that of which, as the right and true, we are fully conscious in the dim impulse of faith, almost always receives from dogmatism a mere figurative expression, which, instead of immediately determining what we believe, itself requires a fresh exercise of interpretation, the admissible limits of which, again, can only be fixed by that same dim impulse. When Christian theology calls Christ the Son of God, it gives expression no doubt to the most distinctive article of its belief; but it does this in a figure the exact signification of which it can by no means precisely determine; what that phrase expresses and is meant to express is clearer to the believing soul without than with

the dogmatic determinations which have been attached to it, for the figure taken simply merely indicates the intimate nature of that relation between God and Christ which is clear to feeling; it contains no explanation as to the mode of that relation, all adequate knowledge of which is impossible for us. Direct religious feeling meets the Church's teaching concerning the redeeming power of Christ's mediatorial death with ready faith, but this faith is not rewarded by any increase of knowledge. For that idea of a sacrifice to which dim emotion first betakes itself, no other idea is substituted which makes the redeeming power more comprehensible without at the same time diminishing the value of the mediatorial death. We all feel that evil has taken hold of us, and that sin, like some inheritance inexplicably entailed, runs through the whole race; but the thoughts which arise from this consciousness, and have not been worked out to any clear conclusion, cannot be led to such a conclusion by way of dogmatism; ideas which go so far astray as belief in the complete solidarity of mankind, and in the actual inheritance by the whole race (as by legal representatives) of the sin of our first ancestor, cannot by reason of their own obscurity afford any illumination to our minds; they merely give an incisive statement of the problem at which we unsuccessfully labour.

Besides those harmonious and early-developed teachings which the Church adopted as part of its confession of faith, men's speculative impulse has driven them to make innumerable attempts to find an explanation of the world which should be in agreement with Christian doctrine, but the greater divergence of these explanations from accepted teaching has prevented their being similarly accepted. The Protestant theology of our own time is more active in this direction than it has been for a long period previously, believing on the one hand that it possesses in the results of modern philosophy new and previously unknown levers of religious truth, and on the other hand being animated by a courage of conviction for the assurance of which I do not know the grounds. The self-

imposed limitation which led philosophy at the end of the last century to give up all claim to a knowledge of the supersensuous, caused the prominence of a rationalistic system of ethics which, since it lacked any views concerning the place of the moral world in the plan of the whole, came at last to be without any religious colouring whatever. But our highest wisdom cannot consist in following general rules of duty without caring in the least what benefit may or may not ultimately result from their fulfilment; we need to be convinced of some intelligible cosmic connection in which we can trace the destiny of human life and the eternal significance of all moral effort. The suppression of this impulse to a cosmological development of philosophic views has by a natural process of reaction been followed by its reappearance in a prominent form, and it has now, as it seems to me, far exceeded the limits within which it could hope for success and for salutary influence on Christian life.

For not only do we doubt whether the methods of modern philosophy can make possible that which has always hitherto been impossible, but we also lament that dogmatic investigations seldom make a conscientious use of even the modest results which this philosophy has perhaps obtained. Christianity does not furnish any immediate revelation concerning the structure of the world; the essence of its ethical teaching and scriptural sayings which only incidentally involve cosmological notions, are the sole materials which Christians can use for making a construction of the universe. But from moral Ideas the most careful investigation can never develop anything more than the universal conditions to which the cosmic construction must conform in order to avoid coming into collision with the Supreme Principle of Good; and only a very undisciplined fancy will imagine that it can learn from this source those definite concrete forms of the cosmic order by which the conditions indicated are satisfied; we cannot even use these Ideas to carry on the world of experience, which lies before us, beyond what is actually given, or to find with any certainty that continuation and comple-

tion of it which is hidden from our observation. Therefore such attempts run great risk of ceasing to ask what *must* be, or even what *may* be, and of asking instead what it is that would be most delightful *supposing* that it were the actual condition of things; and this matter is decided by the prejudices of individual character, which are insusceptible of discipline. Yet the inclination which we here blame is supported by a philosophy which expressly regards the meaning of things, their Ideas, as being (and that without any limitation) their active essence; and which, in seeking out and determining these Ideas, requires no strict and formal proof, but regards poetic justice in the coherent development of thought as a sufficient warranty of truth. This being the case, the dogmatic investigation of our own time has, with great expenditure of philosophic profundity, and with little method and much self-satisfaction, plunged into inquiries which the modern spirit of general culture refuses to enter upon at all, not only from a consciousness of its probable ill-success, but also from fear lest, by presumptuously insisting upon trying to know all things, it should intrude upon those divine secrets which it respects. And the divergent results of these attempts do not promise unanimity of knowledge on questions concerning which believing minds have been always at one; they only give to modern dogmatic theology as a whole a character of anarchy tempered by sterility.

For no gain accrues to life from all these attempts either to set forth in detail by uncertain interpretation of uncertain texts the whole story of Creation—and that after a fashion which is in conflict with the results of scientific investigation of Nature—or to make out what will be the end of the world and the exact nature of man's future life, without taking into consideration our progressive knowledge of the physical world, which (though it can indeed never solve such problems) may furnish our thoughts concerning them with a background that sets limits to too great extravagances. And finally, we blame, as being both unfruitful and little in conformity with the spirit of Christianity, a predilection for speculations

concerning the divine Trinity in Unity, in which many declare, to the profound astonishment of their hearers, that they have found the key to all knowledge, sacred and profane—though they have not hitherto done anything to make men hope for the fulfilment of their promises. In the living Christ, faithful souls beheld, not indeed God, for Christ Himself said, *The Father is greater than I*, but the Son of God who is one with God in a way that we do not understand, and who came into the world, not because His coming had from the beginning been the necessary consequence of some natural law of cosmic order, but because the love of God, which is greater than all the mechanism of necessary development, though it need not have sent Him, yet did send Him to the world. To this dualism of the Divine Personality faith might also add, as an object of veneration, that Holy Ghost, the Comforter, whom Christ promised to send; but neither had this Spirit appeared in the course of history in personal form, nor was there any need to understand it as other than some divine activity. Dogmatic theology, with but a weak foundation in passages of Holy Scripture which indicate the dawn of speculation in Christian thought, has endeavoured to develop from such material a Metaphysics of the divine nature which the further it advances gets further away from that to which simple faith would cling as the blessing of Christianity.

And yet it is a natural need which leads men to make these attempts. It seemed that the divine revelation was not estimated at its full value if it were regarded as an historically incalculable addition to an intrinsically independent cosmic order (the content of the revelation being indeed at first taken hold of by men's minds for its own worth, without any inquiry as to the process by which this content was made known)—it seemed as though this revelation must be inwoven both in the past and in the future with the whole economy of the universe, so that there might be nothing in that economy which was (as to either the nature or reality of its existence) independent of the revelation. Thus it was that the imag

of the historical Christ grew into the thought of a power that worked in God before the world began; the same purpose of the love of God which was made manifest in the historical act of redemption, came to be regarded as having been from the beginning that regulative will through which things are what they are. Now this spiritual need of finding unity in the nature and acts of God could be satisfied by the belief that that which moved God to redeem the world should be conceived as a thought which had been from everlasting, and had not been called into existence by any temporal occasion; it was not necessary that the unity thus reached should be endangered by the impracticable demand to make two persons into one; still less was there in the content of faith itself any cogent reason for a similar personification of the Holy Ghost. On the other hand, as we shall see later, the secular speculations of philosophy lead to a trinity in the beginnings of the cosmos—that is, to laws *according to* which things are, to powers *by* which they are, and to ends *for the sake of* which they are what they are. The recognition of this trinity is no triumph of philosophy, for it is in reality a confession of human incapacity to identify as one in cognition that which according to the demand of cognition itself must necessarily be one; and for the rest, however those three may be conceived, they can never be anything other than forms of divine activity which are incapable of being derived one from another. This trinity—a fateful gift—has been offered by philosophy to theology, and has been accepted, although its several members correspond neither with the historical Christ and the promised Holy Ghost, nor with the three persons of the divine Trinity in Unity as confessed by the Church. Now it may be that theology in the narrowest sense—the dogmatic determination of our notions concerning the nature of God—cannot be made complete without reference to that philosophic trinity of essentially different principles; but all the assistance that philosophy can give will never apply to more than the first article of our confession of faith; Christology gains nothing by it in a scientific point

of view, and loses as regards its significance for living faith. For what faithful souls cling to is the living Christ, the complete personality of the Saviour, not taken figuratively or in any symbolic sense; if this personality is interpreted as some necessary phase of the Divine Nature, as some secondary potentiality of the concept of Divinity, as an antithesis within the Deity, as a world-creating λόγος, our faith is only disturbed. For we do not see why we should separate from God energies which we are accustomed to regard as among His attributes, and we cannot discover that any metaphysical glory of Christ as a superlatively supernatural God of Nature, is greater than the moral majesty of the Redeemer. It seems to us that such speculations transfer us from the place in which Christianity has set us, from faith in the sole and final reality of what is good and holy, back to the old heathen cosmology which regarded God as manifesting Himself, not in unfathomable deeds of love, but in those emanations of His being which take place according to natural laws. It *seems* to us so; for we do not in the least wish to conceal from ourselves, nor to withhold here our acknowledgment, that the attempts which have been made in this direction have been determined by the need which men feel of making the world and all things in it subordinate to the ethical plan of salvation; neither the Christian temper in which these attempts have been undertaken nor the earnestness with which they have been carried out seem to us to admit of doubt; all we affirm is that the impression produced on many minds by the results at which they have arrived is the very opposite of that at which they aim. But we pass over with silent contempt those essays which simply trifle with the notion of trinity in unity, after the fashion of that numerical mysticism indulged in by the Pythagoreans; and which almost seem as though they set great value on the Trinity merely because of its involving the number three. It would be just as reasonable to include in our confession of faith veneration of the prime numbers, or of square roots.

§ 8. We have said that these speculations were for the

most part unfruitful; that we are able to confine ourselves to this reproach is due to the opposition which secular civilisation has for so long offered to the power of the Church. The vagaries of millenarian dreamers have now come to an end; if they were still in fashion, other and more important consequences would be entailed by the rococo of belief in a devil and other similar doctrines to which the dogmatic renascence of our time is inclined to return; the Humanism which has had a salutary and pervading influence on theology as science has revived, and a sense of practical justice received increased development, will, we hope, in the future prevent speculative errors from being carried out in practice. But this greater security of personal faith is connected with increasing insecurity of the ecclesiastical edifice, the pulling down or re-establishing of which is at present a subject of dispute.

The fact that their gods were chiefly important because of their significance in Nature, prevented the heathen world from regarding the whole life of man as a continual service of worship towards the divine splendour of these deities; the plurality of divinities, to particular individuals among whom particular tribes attached themselves, made difficult the combination of all mankind or even of one nation in that close communion which unites the members of a community drawn together by common spiritual interests; where, in consequence of the greater unity of mythological teaching, this hindrance did not exist, still religious communion did not exist independently beside political communion, but men's confession of faith was itself national; nothing was required beyond civic virtue and ceremonial acts, and the national religion had no power to bring individuals into communion as the subjects of a higher and spiritual kingdom; in India, where more than in any other part of the heathen world, religious feeling had entered most deeply into all mental needs and distresses, the despair of life at which men arrived was no bond of any community of life. The Church is an institution peculiar to Christianity. Disregarding distinctions of nationality, sex, rank, and education, it aims

at uniting all mankind in a service towards God which consists in the subjection of one's whole life to Him.

The Church began as a free community, without any other bond of union than love and a common faith; like every growing society, it developed forms of administration and of internal intercourse that were binding on its members, but it did not claim any authority over the rest of mankind, although even then it felt itself raised above all temporal combinations of men by the consciousness of being a union entered into for purposes of eternal import. When the Roman persecution of Christianity had given place to recognition, there grew up in the Church the consciousness of being an institution to the ordinances of which secular national life was bound to conform, and departure from which was no longer regarded as a step which men might take of their own free choice but as an act of desertion to be judicially punished. With a still bolder flight it finally rose from the position of an earthly institution to the importance of a cosmic power which not only has given to it on earth all supremacy over the consciences of men, over the authority of magistrates, and over the lands of the heathen, but which is able also, through those means of grace which it alone administers and distributes, to reach beyond this life, and not only teaches men how to find or avoid the paths to salvation and to damnation, but actually opens or shuts the entrance to these. Thus the Church became the grandest and most noteworthy constituent of that great department of cosmic order which the human mind has added to the existing order of physical Nature. Even the constitution of States depends upon objects of the physical world, upon the land and its boundaries, the produce of the soil and men's right to it, and the distribution of the wealth which is produced, and nowhere do its pretensions to power extend beyond the earth itself; the Church alone binds the spirits of men and fills the whole of life with a pervading consciousness of its connection with the other world. Hence it is easy to comprehend the admiration which the dazzling impression produced by this

mighty phænomenon ever calls forth afresh in receptive minds, and the longing which men feel to be received into the steady shelter of its mighty order, and thus escape the fragmentariness of a life which pursues its ends with vacillating purpose.

But the more completely the plan of any organization corresponds to an ideal, the more injurious is the effect which this organization has if it is forced upon any life as a form that must be complied with, when that life is not adapted to realize it voluntarily. The most fatal error of human efforts consists in prematurely attempting to realize *ectypes* of perfection in cases where what ought to be considered is the organization of *means* for approaching *in practice* as near to perfection as circumstances will allow. Such an error was involved in the constitution of the Church; it sought to reach in this life a condition which is only possible in another life, and suppressed the free activity of powers which cannot reach this goal here below though they may prepare the way for it. It believed that it possessed complete truth, and endeavoured to hinder any search for truth; and believing itself to be in enjoyment of this possession, it undertook cares which belong only to providence itself; it interfered, commanding and forbidding, with the general secular concerns of mankind and the consciences of individuals, as though it had been the immediate plenipotentiary of God and the guardian of those laws according to which eternal wisdom chose to regulate mundane affairs; it assumed a right of punishing and persecuting all who resisted any part of the extensive ramifications of its doctrine and its regulations, and all this universal dominion which it arrogated in the name of the Holy Ghost, it could only carry on by means of human personages whose incurable frailties were in innumerable particulars in contradiction with the sacredness of their office. It is the spirit of orientalism which culminates in this colossal attempt not only to teach but also to found and establish a cosmic order, and to assign to human life, with all its multifarious interests, a place in that order. But

as it was the West and not the East which reached this highest summit of religious cosmology, so from the time when it was attained all the powers of Western civilisation have been actively engaged in an unceasing struggle against this vision of an earthly anticipation of divine order, which at a distance promises happiness but disappoints those who have drawn near.

The Protestant mode of thought has given up the cosmical significance of the Church; according to it, the visible Church at least is once again regarded as a mundane institution of which the business is to minister to the religious life of man. But this being so, the course of events has brought the Church into a connection with the State which abounds in anomalies that are difficult to remove, and that have caused her members to withdraw their sympathy from her in increasing measure. The Roman Catholic Church, having one supreme head, an established doctrine, and extremely homogeneous forms of worship, is spread abroad among the nations, and may be regarded by those who belong to it as a great objective and independent organization. If Protestant Christianity had been able to maintain a similar unity of doctrine, of worship, and of Church government, the various national Churches into which it has split up would be less prejudicial to the vigour of religious feeling; they would appear as the locally diverse secular organizations which guard sanctities that are everywhere equally hallowed. And in fact this is the part which the secular power professes to assume in religious matters; but the unity to which we have referred never existed in any completeness. Hence although the times will not return in which governments could forbid their subjects to make profession of any religion or to change their religion, yet there is still much room in the interpretation of the established faith for the exercise of political power, and of the favour capriciously shown to divergent points of view between which Protestant freedom permits a choice. The absence of uniform doctrine; men's feeling that its place and name are taken by the subjective convictions of individual

ecclesiastics; a perception that the character of these convictions changes considerably within brief periods; the not always just yet still not always unjust suspicion that these changes are to some extent influenced by the pressure of political motives—all these circumstances cause the Church to be regarded as a political institution, the pressure of which arouses aversion, because it intrudes into a region in which obedience to it ought not to come into conflict with men's spiritual convictions.

We cannot prophesy what the future will be, we can only prepare for it. It is not to be hoped nor is it to be wished that the Protestant freedom of religious conviction and investigation should be suppressed or voluntarily surrendered; it is to be hoped and wished that dogmatic theology, becoming less confident in its assurance of knowledge, should diminish the number of arbitrary interpretations of things which do not admit of interpretation, and should by greater unanimity in matters that are essential, and by abandoning useless disputes, strengthen in the members of its communion a sense of trust in Christian faith; it is to be hoped and wished that thoughtful sensitiveness of conscience in treating all the concerns of life (that most wholesome fruit which living Christianity has produced in many souls) should be recognised as greater than the temper of mind which, turning away from all that is best and fairest in modern secular civilisation, affects matters that are inscrutable and useless, and archaisms which offend taste without strengthening faith; finally, it is to be hoped and wished that a greater share in the management of Church matters should be given to the laity, and that thus they should regain that interest in these matters which they have lost through being so much excluded from them. But though it is certain that among the things most to be desired in the future we must reckon the continued existence of the Church as an objective reality in which the religious life of the individual issues, finding therein both a guarantee that its efforts are well directed, and spiritual comfort and edification; yet still if those changes which we have indicated as desirable

are not carried out, we should hold that the renewed attempt to maintain the external integrity of the Church, while it lacked the internal conditions of truth, would be less salutary than its ruin—a ruin which our opponents point out to us as an inevitable consequence of the Protestant principle. It is certain that the time immediately succeeding such a catastrophe would be neither desirable nor agreeable; but we may confidently hope that not only would living religion grow when relieved from conflict with unsuitable external ordinances, but that also the ineradicable need which men feel of not standing alone in religion and of having their faith recognised, would lead to the voluntary establishment of great ecclesiastical communities that would be free from impracticable claims to authority over men not belonging to them.

# CHAPTER V.

## POLITICAL LIFE, AND SOCIETY.

The Family, and Tribal States—The Kingdoms of the East—Paternal Despotism —The Political Constructions of the Greeks—Civic Life and Law in Rome —Political Life and Society in the Middle Ages—The Autonomy of Society —National and Historical Law—Practicable and Impracticable Postulates: Duty of Society as regards its Members, State and Society; Constitutional Government; Socialism; International Relations.

§ 1. THE Family, as being most directly founded upon natural relations, has always been regarded as the indispensable basis of Society, and often as the root from which this has grown; and its constitution has always furnished the model to be imitated by all social order. Unless ennobled by the civilising influences of a life rich in manifold interests, natural family relations in themselves and exclusive regard for them, have not produced either "the white flower of a blameless life," or social arrangements conducive to progress, or just towards the just claims of individual human beings. And this is not surprising; for Nature does indeed lead us to form connections which, understood in a right sense and used in a right spirit, afford abundant occasion for the development of moral beauty, but we cannot have the right understanding or the right spirit except as the result of many-sided reflection to which we are forced by the multiplicity of the tasks and conflicts of life.

The world, with all those complicated relations of existence produced by the historical course of human civilisation, is now spread before us as an immeasurable field in which there lie concealed a thousand sources of happiness and of evil; to go out together into this dim distance (into which our anticipatory dreams have long ago ventured) purposing to share each other's joy and sorrow, and with the hope that agreement in estimating that which the future may bring will strengthen

mutual fidelity—such a resolution (when such it is that leads to the establishment of family relationships) does undoubtedly ennoble the natural impulse from which it springs. On the other hand, the poorer life is, and the more monotonous men's anticipation of the future, the less worthy will family happiness be, and the less removed from that which Nature affords even to the beasts; and the more plainly will there appear those immoral results, of which (in barbarous minds) natural relations are actually the occasion. For the superiority of the man's strength over the woman's need of help, and of the fully developed vigour of adults over the tenderness of childhood, are indications of Nature which have been always understood and followed by the barbarous men of uncivilised times. And the less the security of life and the activity of trade, the more does the woman, who is dependent and obliged to seek the protection of the man, have to do for the support of the family, and so there arises polygamy, not as the result of a direct indication of Nature, but as a proximate consequence of natural relations; and polygamy entails a general degradation of women, degrees of importance among the wives of one man, and differences in the hereditary rights which descend to their children. The relation between parents and children is in the same way deformed by this incapacity of ennobling natural bonds. That profound secret of cosmic order by which each generation of men springs from that which preceded it, and by which parents are endowed with the wonderful power of bringing into the world immortal souls like themselves, appears to the untutored mind to be nothing but a most commonplace example of causation, and it seems to it that all the power which a maker has over the work of his own hands belongs as a matter of course to parents —or rather to the father, since maternal rights were very early ignored. This paternal power had as regarded the child a right of life and death just as unconditional as is the right of a possessor to dispose of his lifeless chattels; it knew no distinction between immature youth and the dawning of manly independence; it was without respect for the ripening

individuality of human souls, and made no attempt to renew the bonds of relationship in a spiritual sense, by learning to enter into fresh views of life, but was ever harking back upon one past fact—the fact of physical generation. This paternal power was the direct result of straining to the utmost limit those natural relations upon which the family is founded; we trace it clearly in the beginnings of every civilisation, and see that it disappears from practice in proportion as the growing complexity of human relations leads to a more refined estimation of the rights of individual men.

Even apart from such crude misinterpretations family life does not teach social morality. Special and unique relations bind the members of a family together by feelings which do not flow from general duties of men towards their fellows; these feelings do indeed incidentally enrich life with a passionate intensity of affection, which is no doubt an element of the best human happiness, but so far from illuminating men's consciousness of general moral duties, they only obscure it. Through forgiving lenity and precautionary discipline they hinder justice; in the education of children they often abridge freedom which should be permitted, and permit them much to which they have no claim; even where their demands and permissions agree with the general commands of morality, there is in the mixture of piety and love which prompts them a combination alien to the obligatory power of moral laws. For what we do from piety, that is from a devout feeling, which is not clearly conscious of the grounds and limits of reciprocal duties, seems to us (being indeed, as it is, only the result of our temper of mind) as the mere efflux of our own devout individual character; and even where all vanity of self-exaltation is absent, it appears to be something which is by no means necessarily present in the world, and in fact would not be so if it were not for our good disposition; we by no means think of it as something which others have a right to receive from us, which right would be eternally valid even though no one should regard it. Every one acknowledges the advantage of this founda-

tion of piety in the domestic life of families, but public morality is not based upon it. A man only comprehends what he owes to his fellows when he comes into contact with those who are nothing to him; it is only when all the claims to consideration, friendship, love, and reverence founded upon those special natural conditions have fallen away, that general duties and their necessary general motives become clear. Hence as long as the social conditions of a growing nation are regulated after the pattern of family relations, we do indeed find many beautiful and poetic traits of character, but scarcely any advance towards justice—rather, on the contrary, many traces of its opposite. For instance, it is quite common to find in early civilisation, even among people of otherwise mild temperament, extreme harshness in the punishment of crime; without weighing the degrees of heinousness in different offences, and still more without taking into consideration those extenuating circumstances which lessen guilt in particular cases, the piety of national morality, when once wounded, proceeds with indiscriminating pitilessness. This is quite natural to a temper which is accustomed to be guided in its demands not by recognised rights of others, but only by its own general feeling, and which therefore when it is offended is conscious of nothing but the offence to itself, and in unconditionally repulsing the insult is not moderated by any consideration of different circumstances.

When a numerous people arises from the multiplication of families, the feeling of being bound together by ties of kindred disappears, and is replaced by the feeling of a community founded on similarity of language, custom, and thought. The more self-centred and exclusive any such people, starting from a basis of very special conditions, can make its life, the further will its condition be from corresponding to the ideal of human society. To æsthetic feeling it may seem that in comparison with the vacillating half-heartedness so abundantly produced by every complex civilisation, that unwavering stability of national character is

much to be preferred which is easily and homogeneously developed in all individuals when the whole circumstances of their life are fixed and never subjected to doubt; but this advantage is not in itself to be reckoned higher than the beauty which belongs to some species of animals, and likewise always reappears under certain conditions. There is in it no germ of progress; its morality, which has only grown up through custom, has not the flexibility which can only be given by general principles; it presses upon individuals with the force of rigid prejudice, and condemns all those individual impulses running counter to the narrow-mindedness of tradition, which now and then arise from the inextinguishable diversities of human nature. Hence all such thoroughly national civilisations of past times are characterized by unintelligent intolerance, and this only disappears when, having been forced into contact with the morality of other nations, men's illusion as to the universal validity of their own maxims is destroyed, and they are constrained to learn in their most comprehensive form those universal moral obligations without the recognition of which no human society can subsist.

It was by nomad tribes, whose unity depends predominantly upon the remembrance of their past history, that the bond of consanguinity was held in highest esteem; and in the early ages it often happened that when they changed their nomad habits for a stationary life, this fact had a great influence upon the political arrangements which sprang from their connection with the soil which was to be henceforth the permanent object of their activity. The different tribes distributed conquered and unowned land among fathers of families and heads of houses, and sought by many ingenuities of legislation to make this distribution permanent; in so doing they gave to the constitution of the State a distinct genealogical stamp, assimilating it even in reference to its physical basis to the internal order of a family sprung from one ancestor. When they made such attempts they had little knowledge of the real tasks of life, and did not foresee that

the new connections with territorial possessions, into which they were entering, were at variance with the sentiments and plans by which they were still swayed. While the Hebrews were yet wandering shepherds, they regarded the preservation of their race as the most sacred duty, and believed that their God had promised to them, the chosen people, the multiplication of their seed as His primary blessing. In fact, if the historic life of wandering tribes were not carried on in the ever-renewed traditions of never-failing generations, such tribes would leave behind no signs of their existence and activity, for they produce nothing that is physically durable; they would vanish from the earth and from reality altogether, leaving no trace behind, and would be as though they had never been. The Greeks as well as the Hebrews were not without a longing to live for ever in their descendants; but history did not afford them any such uninterrupted retrospective view of their ancestors. And yet when the Dorians founded the kingdom of Sparta, they seemed just as eagerly anxious to establish by artificial regulation of property an immutable complement of families of equal fortune, by which the Spartan nation should be represented through infinite future ages. Both the Greek and the Semitic races sought to strengthen their national fabric by hindering free self-determination in various ways, and to secure the continued existence of every family even by the help of legal fictions; and thus both greatly retarded their own social development, and their political constructions were eventually swept away by the natural current of events. For stationary life brings men into such manifold contact with the nature of things, and awakens in them such strong ideas of the rights which accrue to them from the activity which they expend upon objects, that any family morality which does not recognise the independence founded upon such personal rights is sure to be at last broken through; and Nature itself forbids that the number of families should always continue the same; some families multiplying greatly while others become extinct, laws which aim at the maintenance of family interests are

likely to promote the advent of intolerable extremes of wealth and poverty.

A strong feeling of unity animated the tribes whose members were bound together by ties of blood; this feeling ceased to be possible when need and the spirit of adventure had caused nations to attack one another, and through the subjection of many by one, had formed communities which indeed hardly deserve to be called communities, and still less states, but were simply kingdoms. For it was only the authority of government and not a desire on the part of individuals for such association that held together these political conglomerates which were produced in greatest number, though not exclusively, by the East. That a victorious tribe should regard the vanquished as destitute of rights and should arbitrarily dispose of their lives, is a thing that the general characteristics of human nature make easily intelligible; and from a consideration of actual circumstances and of the better aspects of that nature, we can also understand how it was that what befell the conquered was not unmitigated slavery, but that the details of their life were left to be determined by their own codes of morality, absolute submission being required in only a few particulars. But that within the dominant tribe there could be developed the authority of one individual ruler is a fact which can be explained only by the co-operation of many conditions. In time of peace patriarchal authority might be established in a tribe, and the leader of successful expeditions might win ardent attachment; the exaltation of the authority thus obtained to sovereign majesty seems to be made permanently possible only by the transition to stationary life, and to be facilitated by the subjection of alien communities. For however slight political insight may be in other respects, the claim of sovereignty over wide territories, the inhabitants of which differ in their mode of life, must teach that some system of order and administration is necessary; care for the general security recommends that in the government of conquered races there should be no divided mind; and finally, the greater complexity of conditions makes it

possible for the ruler to withdraw from daily intercourse into exalted unapproachableness. This last circumstance seems always to have been serviceable to oriental governments in establishing and exalting men's reverence for their rulers, and impressing upon the minds both of the dominant race and also (and with less difficulty) of the conquered that this sovereignty of one over all was an irrevocable decree of Nature. Obedience of the multitude towards a power to which it feels bound by ties neither of morality nor of affection, and which at the same time would be incapable of opposing any adequate physical resistance to the united will of all its individual subjects, rests chiefly upon the uncertainty which each individual feels as to the sentiments and interests of the rest. There have been but few governments which could have outlasted the moment (if it had ever come) of a general revelation of the secrets of all hearts; men would have seen how little the law corresponded with the real will of all; and with such a discovery there would have been a general revolt of will against it. But such knowledge of a possibly existent unanimity could only be in very simple conditions of society, where the circumstances of all are thoroughly homogeneous, or where there are great facilities for the exchange of thought, and a highly developed public opinion. Yet in comparatively recent times the leaders of nomad nations have been able to put the world in dread, thanks to the enthusiastic and unconditional obedience of their followers; the will of the leaders being nothing more than the concentrated and unified expression of desires which they both found pre-existing and also helped to intensify in their uncivilised and hardy tribes; but nations at this stage of civilisation universally reject despotism in times of peace. Where such unanimity has become a thing of the past, and community of public opinion has not yet arisen, the ambition of rulers derives its strength from the paralysing uncertainty of each man concerning the views of others. For submission to an express law addressed to all, must ever promise most security to him who does not know (because they do not manifest themselves) those counter-

forces in the society which are able and willing to offer resistance—who can never know what interests beyond his own intellectual horizon may alter the sentiments of men whom otherwise he would naturally conclude to be like-minded with himself—and who finally, if he knew all this, would still not be able to call into combined action at the right moment those forces which he knows to exist. In this lies the great superiority which any established order, whatever it may be, generally has over all attempts at innovation —the certain evil, to which men have learnt to accommodate themselves, is preferred to the uncertain, of which they cannot see all the bearings.

The sentiments cherished towards Asiatic despots by their subjects could hardly have been other than these. They were reinforced only by the strength of habit, which confirmed patience in the one case and confidence in the other, causing him who was ruled to regard being ruled as a fate which could not be even thought away, and him who ruled to consider that he had a natural right to rule. The material with which this framework of society was filled in, differed according to the temperament of nations and of their governors. In the East the giddy height to which the position of ruler had been raised brought to powerful minds little more than dreams of universal sovereignty which did not lead to the purposive accomplishment of any social organization, but yet, with unconscious historic efficacy, enlarged the intellectual horizon of the nations and the bonds between them, and aroused in men a general idea of vast and comprehensive order. And since these dreams could only be carried out by means of the strength of subjects, the resources of subjects had to be spared, and protected by a regular administration; such administration could be carried out in detail only by the conquered nations themselves, since they alone were acquainted with their own circumstances, and for this reason despots left national institutions uninterfered with for the most part, only reserving to themselves the power of disposing absolutely of the resources produced by means of these.

Hence the fall of kingdoms and the transference of dominion to other tribes altered but little the general features of society; it was only organized within limited circles, not being to any extent systematized as a whole.

The ancient political communities of China and of the American Indians deserve the name of states much more than these Asiatic kingdoms; in them, in place of empty arbitrariness, we find the thought of an ordered administration of human affairs which the ruler is empowered to carry out. Asiatic despotism left the life of the people to its own luck; it ruled indeed, but did not govern; but China, Mexico, and Peru lacked neither an administration regulated in detail, nor generally received laws and traditions which sought to bring the tenor of individual life into harmony with the well-being of the whole; the rights and duties of subjects and morality and education were determined with provident wisdom and sometimes with much refinement of feeling, and connected with rules founded at the same time upon natural equity and judicious policy. Peru especially had in many respects realized the Platonic ideal of a state, though presenting that interesting superabundance of characteristic practical arrangements which always distinguishes social institutions that have resulted from actual circumstances as compared with logical deductions from general principles. Yet none of these states were promotive of progress for long; China has retained its isolation up to the present time, Mexico was on the verge of dissolution when destruction fell upon it from without; Peru, notwithstanding the devotion of its people to their native government, could not long withstand the pressure of the Europeans. For all these states were founded, not upon any basis of justice, but on well-meaning administration and consecrated tradition. They had laws, and these were not merely arbitrary ordinances; but a sense of equity, attainment of definite ends, and traditional usage, were the sole grounds from which they proceeded, for they were based on no recognition of universal principles of right. They had an ideal of social life, which they regarded as the concern of the state,

and sought to realize by complex organization and strict centralization; but for them society did not rest on individual personal rights, which always demand recognition even where their exercise has to be renounced for the sake of the general welfare; they rather set their political ideal before themselves as an immutable goal, and deduced from it all individual rights and the comparative cogency of every claim. Hence when there came a dissolution of this form of political constitution, in which (as is commonly said of organisms) the whole was actually prior to the parts, the parts had no vital strength of their own, which could enable them to attempt new political constructions. Any structure that arises from the inherent powers of its constituent parts is, by the ever-active reciprocity of these, renewed under some fresh form, whenever the old form disappears; that more organic construction of society, in which every detail has reference to the one informing Idea of the whole, may have a more imposing appearance as long as it lasts, but if its integrity is once broken up, it falls into a condition of corruption incapable of producing fresh life. The European nations, who had a strong consciousness of personal rights, due partly to their own natural character, and partly to Roman influence, have been able to escape without political dissolution from conditions of great social confusion; for the Peruvian, the possibility of social life depended upon the existence of his Incas, and upon the continuance of a thousand historically transmitted institutions; accustomed to a definite form of the *whole*, he knew nothing of that power of the *universal* which makes the formation of new wholes always possible. Under the dominion of their well-meaning princes, who were prudent in policy and not unskilled in economics, these Indians may have felt very much happier than they would probably have been under the dominion of the philosophic expert whom Plato would have called to the throne; but their edifice of protective despotism, when called upon to resist unforeseen disturbances, did not stand the test.

§ 2. A settlement had been formed on the banks of the

Eurotas by a warlike nomad tribe called Dorians. It was natural that this community of foreigners, surrounded on all sides by enemies, should retain those habits of constant readiness for combat, strict fidelity to one another, and stern discipline, which the obligation of self-preservation had taught to them during their wanderings, and which besides were ancient habits of their race. Hence is explicable a great part of the political constitution of Sparta—both of what it commanded and of what it forbade; it established as the permanent order of the commonwealth institutions which had been adapted to the temporary needs of the infant state, and the position in which it at first found itself.

In modern times the State is not expected to teach society what are the important aims of life, and to make regulations by which individuals may be guided to the attainment of such ends; it is sufficient and seems most desirable that public institutions should do no more than protect all free and lawful personal activity, affording merely the possibility of general human culture, which every individual may use in the particular way that suits his own talents. By the Greek mind generally, the unceasing discipline and guidance of individual life was regarded as both the right and the duty of the state; it was carried out in Sparta in such a way that all individual powers were forced to exhaust themselves in the work of keeping up the whole, efforts for private ends being neither justified nor encouraged. What was demanded was not the blind obedience of slaves but the conscious self-devotion of citizens to the common weal, the laws and traditions of which were impressed upon all by a careful course of education; but the individual had no freedom either with reference to this genius of the state, or even in other respects; every exercise of human powers which was left to unfettered self-determination was held to threaten the security of the whole. There was no choice of callings, the possible differences of which all disappeared before the one task which the state set itself, that of ensuring constant readiness for war; the behaviour of individuals, family relations, and in

addition to these the social enjoyments of life, were even in unimportant details subjected to state regulation.

Yet it would be an entire mistake to suppose that on this account Spartan life was destitute of all the mental wealth and all the happiness which can rejoice the human soul. That stern discipline itself produced so many and such admirable virtues of manliness, constancy, moderation, discretion, and fidelity, that the very consciousness of this strong and splendid development was in itself a source of exalted pleasure, as it became for contemporaries and posterity an object of genuine admiration. Yet a question arises as to the independent and intrinsically worthy good, which this state (since it took away from individuals the liberty of choosing their aim in life) seemed the more bound to set before all as that which every one should strive after. For all those virtues which we have enumerated are yet but formal excellences, preparatory discipline of efficient powers, which strain towards some ideal in the service of which they may receive the consecration of humanity; they do not in themselves set man much higher than many favoured races of animals which walk the earth in native beauty and with all the grace of consummate strength. The Spartan state lacked the content of mental life to which we refer. It was not animated by any unbounded impulse towards the enlargement of knowledge; on the contrary, it regarded such impulse with suspicion; for the innumerable small interests with which cultivated minds often amuse and occupy themselves, generally winning by the way some fragment of eternal good fraught with delight, the Dorian mind felt no sympathy or indulgence—felt nothing but the contemptuous superiority of which a hardy nature is conscious towards those which are more finely organized; it even seemed as though the moral perfections which it inculcated were required less as a result of devotion to that which was in itself fair and noble than as formal conditions the fulfilment of which were a guarantee to gods and men of the safety of the commonwealth; at any rate Sparta seemed to regard intellectual and artistic culture with suspicion, and to refuse

them room for further development as soon as the stage was reached which from this point of view was desirable.

This strange round of political life—of universality that tolerates no divergencies, of a whole the parts of which have no task but to constitute that whole—is very clearly expressed by Plato when in describing that ideal State of his which reminds one of the Dorian reality, he makes the candid remark, "We are concerned here not with any wellbeing of the parts, but with securing to the whole, to the State as such, the greatest possible power of self-preservation." Both Sparta and Plato leave us asking the question, "What good is it for any such State to exist in the world at all, and what interest can one take in a machine which expends all its strength in self-conservation and turns out no useful product?"

We owe it to history that we need not leave the first question so entirely without an answer as the second. We can easily conceive that a tribe of Indians might have a Spartan form of government, many of the Spartan institutions, and much of the Spartan virtue, and yet that with all this if it lived surrounded by allied tribes, it might not far surpass the average civilisation of the race. But the Spartans were Greeks and lived in Greece. Their constitution did not favour mental progress, but the more it came into contact with the advanced development of the rest of Greece, the less did it suppress in its own subjects the natural capacities of the Hellenic race. The necessity of combating harmful excesses of opposed political tendencies had caused the nation to have an inspiring remembrance of great deeds in the accomplishment of which all had taken part, to have its pride in the national formal virtues confirmed, and its intellectual horizon enlarged by acquaintance with that civilisation against the political consequences of which it fought. Continuous peace or permanent isolation would have undermined the political life of Sparta by increasing unintellectuality and a growing consciousness of its aimlessness; but the external relations we have referred to—the necessity of undertaking the *rôle* of political opposition—provided it for

some time with a vocation for the accomplishment of which subjection to its stern discipline might with some reason be required and was willingly rendered. Gradually the causes of which we have spoken had a disintegrating effect, at first slowly and afterwards more rapidly; the irrepressible desires of human nature were roused by an acquaintance, which crept in and grew, with luxury which the old constitution had taught men to lack with dignity, but had not taught them to enjoy with dignity.

In the parts inhabited by tribes of Ionic tongue, the common evils of unequal distribution of goods, and misuse of inherited authority, were the primary cause of attempts at innovation which, however, did not stop short at the attainment of their proximate ends. The mobile nature of these more social people whom trade and industry had early made familiar with various civilisations, impelled them generally to wish to take a personal part in the administration and guidance of public affairs. The nature of the country seemed to harmonize with this inclination; it favoured the independent development of small communities, the mental powers of which, exercised in constant and concentrated action and reaction, connected with a circumscribed district the remembrance of many famous deeds in which the community as a whole had participated; their native city, adorned with monuments of artistic labour, appeared to all as the visible embodiment of mental wealth, to preserve, protect, and increase which was a debt of honour transmitted from generation to generation. They consciously held fast to this principle of political development; they required that the state should embrace a territory large enough to render it independent of foreign supplies as far as essential necessaries were concerned, but small enough to allow of the personal intercourse of all the citizens. An enlargement of the state which while all the population enjoyed equal rights would have withdrawn the conduct of affairs from the general view and handed it over to a government which could not be inspected, they would have regarded as the beginning of a suppression of freedom.

For them the co-operation of more extensive powers could only be attained by means of confederations which, however, often sacrificed the freedom of the less powerful allies to the interest of the principal one.

The smallness of the stage upon which the actions and reactions of these exceedingly active societies were carried on, accelerated their maturity and decay. The participation of the people in the course of public affairs is free from danger only at times when political development is just beginning, or when it is fully accomplished; in the first case when established national custom is still an effective check upon individual caprice, and at the same time the political course of all is guided into predetermined paths by simple and unvarying tasks; in the second case when long experience (producing respect for necessary restrictions of which men have at last become conscious) prevents even those who disapprove from inconsiderate interference with the course of events. In the first period men will submit without envy to the guidance and authority of a few; in the second it will seem to them necessary that the State as a living historical whole in which past and future as well as present generations have a part, should in some form or other be contrasted with Society, with the aggregate of living men, as an organism which does not altogether coincide with that aggregate. Athens lived over the first period; it was not destined to reach the second; the complete removal of all popular restraints led to a political dissolution, and any reconstruction from the ruins was hindered by the inroads of misfortune from without. We find that even in time of calamity Athens produced some splendid examples of self-sacrifice and enthusiasm, but these—alternating as they do with instances of fatal rashness—seem but as an echo from better times that have passed away; certainly a large number of the most gifted minds appeared in this age of decay, but all withdrew their interest from the present, and looked back with longing eyes to the superior simplicity of the past; unbridled freedom had brought no advance, but it was only

gradually that it could destroy all the good that had been developed in that highly endowed people, by wise legislation, the rule of gifted tyrants, and the thoughtful enthusiasm of a less self-seeking generation.

By this double example of developments in opposite directions, the merits and errors of which it exhibits with inspiring and warning effect to later times, Greece became a decisive turning-point for the political development of the West. To it belongs the glory of having led the human mind from stupid acquiescence in traditional order to conscious participation in the good and ill of a commonwealth; of having transformed the child of a tribe into the member of a nation, and the mere subject of a ruler into the citizen of a state. That which gave stability and order to other nations was not without influence among the Greeks also; they, like others, had begun with obedience towards historical tradition, but at a later stage they held fast (not with the blindness of mere habit, but with conscious piety) all that changed circumstances made it possible for them to retain; they, too, knew well what a magic bond of union between the members of a family or of a race is the retrospective contemplation of a long line of forefathers; but long-continued participation in one common weal was regarded by them as a more powerful bond than the natural tie of race or blood; and when they contrasted their much-divided nation under the common name of Hellenes with the world of Barbarians, they felt themselves connected not as descendants of any one ancestor, but as being the only branch of mankind capable of true political life; finally, they were very ready to trace back their constitutions to the authority of lawgivers and political founders, and to consecrate them by the idea of divine co-operation; they did not, however, receive the ordinances which they ascribed to this source as alien statutes, but recognised in them (as though they had been the expression of a covenant between gods and men) that which had caused their recognition and adoption in the first place. Thus the State seemed to them neither an ordinance of

Nature, nor of directly divine institution, but a construction of human reason, which, with conscious reflection upon existing circumstances, endeavours to order things according to that which is good in the eyes of both gods and men—the national conscience affording the revelation of this good.

To return once more to a consideration of the splendid results of these new political views would be superfluous; scarcely less obvious than those results is the danger which they involve, and involved in an extreme degree when for the first time in history it was attempted to establish political life on its own principles, detached from theocratic grounds and from the constraining influence of instinctive obedience towards traditional authority. Whether what is just exists by Nature or depends upon human institution was a disputed point much handled by Greek sophists. With this question were connected the inferences that if right exists of itself, it is binding upon all, but that if it is the product of human institution, it is not binding for any power which is able to break it. The question when put in the form above given did not admit of any plain and simple answer. Eternal Ideas, valid in themselves, might or might not determine those simplest principles of sentiment and action which must be exemplified in individual actions, in a world of objects that is conditioned by circumstances; but as regarded the *obligation* of these moral Ideas in as far as the Greek national conscience was acquainted with them, no doubt was felt, or at least no doubt but such as was raised by the most idle sophistry—scholastic not practical doubt. The dispute as to what is just related to those definite rights and duties, laws and institutions of social life, which were based upon existing circumstances But with regard to these, Dialectic, in its attempts to prove their bindingness by showing that they proceed directly from the majesty of the supreme ethical Ideas, always fell short. Speaking generally, there are several arrangements by which these Ideas may be introduced into life with almost equal perfection; whatever such arrangements there were or are, have always resulted from human institution, for in this

dispute concerning what is just, gradual growth from the unconscious action and reaction of felt needs is included under the notion of a condition of things produced by the free action of human wills. But this origin of justice in the concrete seemed to diminish its binding force, and the more the Greeks felt that they were in advance of other nations, because of their social order being established on maxims the worth of which they consciously recognised, the greater was their danger of falling into the error of regarding that which they thus recognised as resulting from their own will and choice and always revocable, and themselves as not bound by it. This error, which henceforward has never disappeared from the history of political life, confounds the departments of science and practice. Truths can never be decreed; they can only have their validity recognised; and their validity, as regards reality, is always complete and full, never partial and merely approximate. But on the other hand that which ought to be is determined only by universal Ideas which, as Ideas, form no part of the real world, and always have to wait until human wills give them some special definite form under which they become part of the world of reality. In this sense all justice is the work of men, and can only exist as such, and undoubtedly the sacredness which belongs to the supreme Ideas themselves does not befit it; it has a claim to respect only in as far as it reflects them; but it does not lose its binding force and become of no account merely because it is mediated by human action by which alone reality can be given to it. He who reverences only the supreme Ideas and despises all positive law and justice because of its human ingredient, entirely mistakes the work and destiny of man in history. Our institutions do not exist in order to arouse the admiration of the angels in heaven by their ideal perfection; but their business is, while partaking of that mundane defectiveness which attaches to all human existence, society, and history, to serve as testimonies and results of human reason, which, working by the best light that science and conscience give, tries to make the ideal (as

far as understood) the rule of its action within the sphere of existing circumstances. For this work it is entitled to demand respect, for its worth is not reduced to nullity because it is not the highest conceivable. The attempt to give greater stability to human institutions by tracing them directly to divine revelation, or regarding them as the mysterious consequences of some metaphysical cosmic order, shows imperfection or retrogression of political development; it is an attempt to perpetuate that which, when all is said, is but the work of human creatures; here again what is demanded of men is to be faithful in that which is least, and to feel bound by the relative validity of that for which absolute validity is impossible—bound, that is, as far as is required by the destiny to which they are called—that of going through a course of rational development with the steady continuity of historical progression.

This true political instinct was by no means lacking in the fair infancy of Greek state-construction; in fact, there was a period in which the people regarded with religious awe and scrupulousness the laws which they had imposed upon themselves. It was the sophistry of a corrupt time which first raised the question that we have been considering. But yet before this time there existed motives for raising it. As long as the traditions of unchanging custom were powerful enough, reverence for law was upheld by habit; and to this reverence there was not opposed in men's minds any strong consciousness of having themselves created law. According to the legend, special personal obligations of the people to their lawgivers, ensured to the first great legislations of Lycurgus and Solon a continuance sufficiently long to reproduce the same habit of respect; when subsequently social evils and ever-recurring passions had repeatedly changed the aspect of public order, great statesmen did indeed insist more emphatically than ever upon the sacredness of law—they insisted upon this notwithstanding (rather indeed because of) the fact that they based law upon the free and unanimous consent of the community, but they no longer succeeded in convincing the

popular mind. As in every period which has experienced the misfortune of numerous constitutional changes, so in the later ages of Greek power, political life seemed to be a mere stage upon which arbitrary ordinances and experiments, unsupported by any authoritative force, might clash and struggle.

With regard to the actual order which they established, the views of the Greeks were different from our own. Among the civilised nations of modern times many circumstances (among which the influence of Christianity is most prominent) have contributed to develop a sensitive consciousness of the significance of human personality. Not only does the nobler spirit find true life in those relations to the supersensuous world which are the result of its own mental labour, and ward off from this inner sanctuary all intrusive curiosity or inspection; a similar sense of individual personality has become natural even to simpler minds, which without being conscious of the foundation of their claim, feel that there is something in them which no power in the world is entitled to pry into, every one requires that at least in his family life, his work, his favourite tastes and hobbies he should be left unmolested, and the restrictions for the general good which interfere with him within this sphere he feels to be restrictions indeed. Hence we regard the State as the sum total of ordinances and institutions necessary for securing permanently the free development of individuality, having due regard to the needs of human life and the means which material Nature presents for their satisfaction; and we all along make the tacit assumption that this security must be effected with no more constraint than is involved in limiting the freedom of each individual member of the society so far as to secure the equal freedom of all. The Greeks did not share this high estimation (which is in some respects an over-estimation) of human personality. They regarded men chiefly as products of Nature, and character as dependent upon degrees of intelligence; it was not in their thoughts that there is in us a third power, the Will, which in

good and in evil can fight against insight or natural inclination; as in thought they were little addicted to pondering the problem of Free Will (to which our time loves to refer the very inner sanctuary of personality), so in life they were not averse to being regarded as homogeneous examples of the human race. Absorption in work, in the supersensuous world of belief, and in the heterogeneous circles of thought familiar to those who laboriously investigate the extant fragments of past civilisations, contributes to favour capricious peculiarity of personal development among us. These sources of interest did not count for much among the Greeks, and so there was but little which they could have felt impelled to withdraw from the observation of public life as a sacred private interest. They did not therefore oppose to political order that sensitive consciousness of the respect due to every man's individuality, which demands that each several person should be judged by an unique standard; the State appeared to them as a system of social ordinances by which alone man is originally raised above mere animal existence, is made acquainted with the work of his life, is educated to fitness for this work, and has determined for him the aggregate of his rights and duties towards other men. Not that Greek consciousness lacked either universal moral Ideas or notions of equity and justice in matters of private right; both of these were inevitably evolved by life itself; but neither reached a development corresponding to the perfection of political theory, and neither was independent of this. The Greeks always held fast to the distinction between Greeks and barbarians, bond and free, strangers and guests, friends whom one should benefit and enemies whom one should hate; and this shows that they did not look for justice (the specially moral perfection among the four which they extolled) in the general disposition of man towards man, but in the performance of the mutual obligations imposed by social position. But State regulations interfered in such a way with private right as to diminish many natural privileges, and elevate many others into duties,

seeming in all cases to be rather the source whence rights proceeded, than to find its business in the recognition of those which already existed. Even when the actual condition of things no longer allowed the rein of law to be so tightly drawn, we still see a disposition even in the most enlightened minds to make the disposal of property, the choice of a calling, marriage and the production and education of children the object of State regulation—both these and a multitude of other matters, all of which modern feeling would not even permit to be brought under public consideration. Variety of mental development was not hindered everywhere as it was in Sparta; but even in Athens it was not unfettered until the time of political retrogression; at an earlier period this development itself was in harmony with public opinion; when it was not so, it was, like many religious opinions, suppressed — not as being a sin against a Divine Spirit, but as being an offence against one of the securities for political order; and as a last resource the individual whose existence, even without his own fault seemed to threaten this order, might be removed by banishment.

This complete subjection of individual life to a general rule is not peculiar to antiquity. It lives again not only in religious societies and orders, in which it has its special and easily recognisable motives in feelings of contrition; even where ordinary political society cannot content itself with remedying evil in detail, but thinks that its whole order must be reconstructed, we see both in the carrying out of this purpose (which is rare) and in the plans for doing so (which are frequent) an inclination towards this excessive regulation of life by law. In this case the source of the impulse is not so obvious. Man jealously guards his personal independence in most respects, and yet there is in his mind some mysterious attraction towards renouncing it again, and trying to live as a mere exemplar of his species; the constant exertion of strength which is necessary in order to carry on his individual plan of life is relaxed, and is exchanged for refreshing ease, when he

swims with the stream which flows in an accustomed channel. The want of courage which lurks in this impulse is veiled by the æsthetically elevating impression made by the thought of a strict universal order in human affairs; and that which was partly customary submission, partly exhaustion, takes on the more pleasing aspect of self-sacrifice. If even the more favoured are dragged down by these two motives to the liking for an uniform mechanism of life, the oppressed find in it their only hope of relief; it will at least let them have some weight as individuals in the crowd, as examples of their kind, and assure to them a position in life which they could not have won by their own strength. All these impulses were influential in Greece; there was powerful pressure from below caused by envious desire for equality; it was met from above by a self-sacrificing appreciation of the value of law and order on the part of the more noble spirits; thus it happened that freedom came to the people as a whole only in the form of autonomy, that is, the power to make their own laws; the only freedom left for individuals consisted in the consciousness that all which they did and all which they left undone was determined by rational ordinances of the commonwealth.

Thus Society and the State were almost wholly coincident, and both suffered from the admixture. If there had been realized in society any permanent order, always corresponding to social needs, or if it had been possible to enlighten it to such a degree that it would have made every necessary transition in the quickest and most direct way, then the State would have been of but little importance compared to it But when the development of society proceeds naturally, it is a struggle of selfish interests, which in seeking their own satisfaction violate the rights of others, and thereby disturb the conditions of general prosperity, and finally damage their own welfare. To society in this stage, the State is as it were a conscience. As the guardian of universal justice which is superior to all individual interests, it protects the existing condition of things from all encroachments which would overturn and disregard it as being of no account, at the same time

allowing any new development to set it aside in a lawful way; being keeper of the maxims by which the commonwealth is guided in its external behaviour, it is deaf to those promptings of eccentric fancy which would impose upon the nation tasks that are unsuitable and do not historically devolve upon it. Now it is difficult for this conscience to become articulate and to give judgment if it really resides only in the various individual consciences of conflicting parties, and is not opposed to them as a third and higher power, having a definite embodiment. The present age enjoys a superabundance of this privilege; antiquity had not enough of it. Not only do monarchies embody the impartial justice of the State in the one person of the ruler, to whom the base envy of private interests is unknown, not only do those officers whose connected activity constitutes the government oppose to individual wills a plain systematization of the general will, but also very frequently the authority of the State encounters the mobility of society with superfluous and vexatious constraint, in the form of an excessive number of subordinate officials; finally the large size of states, the enormous extent and complication of State business, and the great development of the science of jurisprudence are all conditions which make it necessary to suppose that the assumption of governmental office should be preceded by special technical preparation by which government as an embodiment of the State is marked off from the rest of society.

Whatever disadvantages this sharp limitation may have, the Greek states which were without it suffered from the deficiency. A small group of reverend officials consisting of men of whom some belonged to the natural aristocracy of age, some to the still more respected aristocracy of noble birth, and some again to that of the rich landed proprietors, were originally contrasted with the nation as its guides and rulers, representing the ancient traditions of justice and civilisation. The progress of democratic sentiment and the increasing power of uncertain riches deprived them of all these advantages.

Want of respect for work as work prevented the formation of any regular circle of occupations which would have divided society into ranks and classes, and have made men desire that the various great interests of human life should be represented; hence it came to pass more and more that every individual felt himself a Citizen of the State pure and simple, and that the National Assembly felt itself identical with the State; growing envy and the struggle of all for equal rights caused an increase in the number of governmental officers, and these degenerated into mere business managers in a society the decisions of which were guided by no respect for any developed system of universal law, but merely by traditions of the past in as far as temporary interests allowed them to prevail, and which was turned to good or ill by the eloquence of individual leaders. The battles which society under the supervision of the State had to fight out, were thus transferred to the domain of politics, and since each party tried to get possession of the helm of State, these battles continually endangered the stability both of the constitution and of those individual rights which were too dependent upon it. Indeed the strife of parties assumed a more monotonous aspect than might have been expected after so much splendour of mental development; it became at last nothing but a struggle between poverty and wealth, and ended in Sparta in an intolerable ascendency of some few rich families, in whose hands was accumulated the possession of all the land, and in Athens in the supremacy of the unpropertied majority, who thrust upon the diminishing class of the well-to-do all those State burdens which resulted chiefly from their own measures, and were intended to satisfy their greed and their political vanity.

§ 3. Between Greece and the present there lies Rome; and to it cultivated minds have often looked, hoping to be taught and elevated; it is with Rome only that the political development of the modern world stands in real causal connection, partly by means of many special historical bonds, which there is no need to mention in this place, and partly by a great intellectual heritage which has been transmitted by her to us.

The development of Law, of Jurisprudence, and of a general sense of Right has given to modern society a foundation by which, even in its aberrations, it is essentially distinguished from the states of the early ages of antiquity; and this foundation is a legacy from Rome.

The Greeks had been animated by a strong impulse to sociality, and an inclination to devote themselves to speculative knowledge. The first led them to seek above all in both theory and practice a perfect plan of social order which should secure the most complete and permanent satisfaction possible of the need they felt for communication, for human intercourse, for consideration among their equals; the other characteristic led them to recognise and disentangle moral and æsthetic Ideas which as supreme exemplars determined the content of a beautiful and worthy life, which they regarded as the goal of human development. Neither of these two spheres of thought favoured the development of a strong sense of right.

Special emotions accompany the approving or disapproving verdict of conscience, being different for different classes of the objects which we judge of, and similar for individuals of the same class. Our approval of what is beautiful is not merely an affirmative judgment that differs from a judgment expressing approval of what is good only in this, that it concerns a different object; on the contrary, in both cases there is an affection of the whole mind differing in kind in each case; and in the same way there is a difference between the recognition of what is just, and of what is benevolent and kind. This subjective impression which the thing judged of—or if we look at it objectively, the nature and degree of that worth which we ascribe to it—makes upon us, is expressed by the general names of good, beautiful, or just, but these names contain no answer to the question, What must anything be in itself in order to produce this impression, and hence to merit this ascription of value? Hence from the Idea of the Beautiful, no theory of æsthetics can show what kind of individual thing it is that beauty appertains to;

and yet it is only individual things that are beautiful, and not the general concept of Beauty. The Idea of Justice does not lead us to know the kind of action that corresponds to it, any more than the concept of Usefulness (to which in a logical point of view it is wholly similar) enlightens us as to what things are useful, and for what. Hence a predilection for these universal concepts which are without content, and for systematic deduction from them, leads men on the one hand (in order that they may have something to deduce from) to put into them some content more or less suitable, and supplied perhaps by cultivated taste, perhaps by a happy inspiration, but not warranted as certain and exhaustive by any full and careful preliminary investigation of particulars. On the other hand, it forces men to take those individual cases in which unsophisticated feeling must recognise the validity of the determinations of value referred to, and with logical art to fit them into a previously constructed scheme. Both these procedures are likely to interfere with the just estimation of particulars, in which alone, all the while, the universal can be realized.

The Romans were protected from this danger by their lack of speculative impulse. They were just as firmly persuaded as the Greeks that there is one single eternal universal Cause which, directly or indirectly, makes everything right that is right; but it did not occur to them to take this Cause and under the form of an Idea of Right to make it in itself the objective source from which the particulars of what is just and right are to be derived; it was known to them only as the agreement of the Practical Reason with itself, this reason never being able to express its whole thought fully at once, but giving, when consulted on special cases, approving or disapproving judgments, all of which are consistent with one another. They made use of this organon for the discovery of right, and thus, by the same path by which hitherto every science has collected its material, attained possession of a multitude of truths relating to right conduct, which referred primarily to very special circumstances, but were in this

isolation much more evident to men's natural sense of right without any mediation, than they could have been as known mediately by deduction from an universal. When the accumulation of the material thus obtained began to make it worth while, and when changed habits of life seemed to require it, there was developed great ingenuity in the discovery of the next higher general principles which lay at the foundation of individual groups of maxims—of analogies by which fresh objects of ethical consideration might be brought under the rules of cases already treated—and finally, in the adjustment of the reciprocal limitations required in cases where different principles came into conflict. But when—stirred partly by the systematizing spirit of Greek philosophy—they finally attempted to express those ultimate principles upon which the abundant store of their ethical wealth rested, they succeeded as little as all later philosophy has done, in finding anything that was at the same time fruitful and conclusive.

This inductive temper which, if need be, can content itself with secure possession of the particular if it cannot find the universal for which it seeks, but cares nothing for any universal from which the particular cannot be obtained, confirmed the peculiarity which marked the political bent of the Romans. Intercourse with one's fellow-men was not a prime necessity of life to the Romans as it was to the Greeks, who could not conceive of human life except in society; least of all did the Romans look to society to bestow or to establish personal rights. A lively consciousness of these—of all to which the individual man lays claim as naturally coming under his power, both as regards the family of which he is the head and the goods which belong to him—was before all other considerations with them; in their view these rights could be bestowed by none, but must be recognised by all. Now life taught the impossibility of carrying out these claims without any modifications, and obliged men to form social ties; but social order did not bestow rights on subjects previously destitute of them, but resulted from the renunciation by individuals of a part of the rights which they already

possessed. Hence it depended on practical limitation of rights recognised in theory, and not upon the establishment of fresh rights. I need only note briefly that these remarks are not intended to describe the actual origin of the Roman state, in which (as in all great historic events) many causes co-operated; they merely serve to indicate a predominant sentiment, by which, as we think, the Roman world was animated; it is the sentiment which led them to a splendid development of the Law of Private Right, and to a development of Public Law that was by no means narrow and merely national.

The changing relations to one another into which the course of life brings individual persons, form the most natural school for the development of a sense of right. The claims of different men daily come into conflict, whether as regards the use of material objects, or with regard to those return services and compensations which the actions of some impose upon others. The frequent occurrence of cases that are similar, though seldom exactly alike, does of itself to some extent secure just judgment; the speedily-felt ill effect of a false judgment helps to bring about its correction; any selfish inclination which a man may feel to maintain such a decision for his own advantage will be in every case suppressed by the apprehension that he may be the next person to suffer from it; from the great multitude of particulars men naturally arrive at general points of view, analogies drawn from which may serve for their guidance in fresh cases; and at the same time the frequent recurrence of individual cases makes clear the errors that may have been committed in incorrectly setting down as similar that which is dissimilar, thus sharpening the distinction between things that are only superficially the same. And further, the course of life brings into circumstances that are the same, or at any rate similar, the most different classes of people—some bound together by strict ties of love and reverence, others unconnected even by the merest acquaintanceship, and having no cause to reckon upon any definite reciprocity either of benevolence or of ill-will. Thus it becomes so much the easier to separate from

all considerations of sentiment the regulation of any special relation, and the just determination of that which, under the circumstances, is due on both sides; and to look at the matter with reference to that which the nature of the relation itself (in as far as it actually occurs among men) imposes upon those between whom it obtains, whatever other ties may connect them together. Thus custom and right become gradually disjoined, and by degrees it grows clearer how much of that which custom enjoins is required by the essential nature of the case, and what modifications of these requirements are a spontaneous contribution of personal feeling. And not only is the multiplicity of persons important, between whom there may arise relations involving private rights, but also the infinite variety of objects with which they may be connected, is of consequence. Superstition may easily attach to particular objects and arrangements in Nature which are permanent, or grand in their way, a mystic significance, which interferes with a just practical treatment of them; but the vast multitude of things which, in the highest degree various, prosaic, and in themselves unimportant, may yet at any moment become the objects of conflicting claims, do not admit of this false illumination; in dealing with them, men become accustomed to regard things as what they are, not as symbols of something else, and look to find the right treatment of them in such a procedure as their nature requires, in order that they may satisfy as completely and permanently as possible all existing claims.

Now the organization of political society, which is to accomplish such a limitation of the rights of individuals as will make them compatible with one another, and is to afford them efficient external protection, is (if we look at its nature) the furthest goal to which our search after right can approximate, and at the same time (if we look at the need of it) one of the first which our search is bound to attain. The difficulties which oppose its establishment are quite different from those which are met with in the establishment of the individual relations which belong to the sphere of Private Right.

Men cannot, as in the latter case, learn from observation of innumerable examples; the injurious effects of any established error only become apparent after a long time, and cannot be easily traced to their source; the organization has to deal with permanent differences of status by taking account of permanent relations, and hence finds it difficult to avoid laying down fixed rules that favour permanent but unjust interests of individual classes of society; it finds it very difficult to escape the influence of those general prejudices with regard to men's different positions in life and reciprocal obligations, which have been produced by custom as time went on; finally, it has to guarantee not only all private rights, but also the welfare of the whole, both of which partly depend upon external circumstances, and also to afford by its institutions, positive satisfaction to the desire for reputation and the impulses to action which stir individual men. These tasks have to be accomplished under conditions which are continually, though slowly, changing; just judgment concerning them is being continually disturbed by party interests, which are not (as is the case in questions between man and man) held back from persistence in injustice by the fear that they themselves may be the next to suffer the evil consequences of an unjust decision. Hence it early came to seem as though Private Right were a kind of immutable justice, founded in the very nature of things and of relations, and inherent in them; and just as naturally Public Law seemed to be the result of human convention and incapable of being made definitive. Indeed the former was not established in Rome by governmental action, but discovered by the sagacity of experts, as instruments of the natural sense of right, whilst many of the ordinances of Public Law have the character of a treaty between conflicting parties, the content of which is binding not in Nature but through the combined wills of contracting parties, until they agree to revoke the treaty.

Notwithstanding this difference of origin, devotion to the commonwealth was not less in Rome than in Greece. When

social order had once been constructed by the submission of all to limitation of their rights, the individual did not cling to it merely because it represented his interests among others; a sense of the grandeur and power which could only be attained by the community as a whole, pride in the great deeds achieved, and a consciousness of the manly virtues which through that order had become elements of everyday life—these won for the State the self-sacrificing attachment of the citizens, and that habit of uncompromising obedience, which caused them to put up with many governmental deficiencies, and more than once to drop complaints about pressing grievances without having obtained the redress they demanded, when government used legal forms as an instrument against them, calling upon them for services the rendering of which prevented their following up their grievances. In later times political storms did indeed by violent and illegal measures disregard all law, yet still even the Empire was far from being a return to Asiatic despotism. In truth the fact is that from this time forward the life of man was based upon a consciousness of inalienable rights which might indeed in many individual cases be disregarded by the temporary representatives of political power, but the theoretical validity of which was no longer a matter of dispute.

We have supposed that personal rights should be recognised and limited by society, but are not bestowed by it. In itself this view of the origin of personal rights is by no means absolutely just; it is with capacities only that Nature endows us; a man's right is something which he first feels as a duty towards others, and hence regards as being also a duty owed by others to himself. This second aspect of the case leads more easily than the first to the conception of right as something universal in which all mankind have part. We only agree to a limitation of original rights with regard to those who profess a willingness to make similar renunciations, that is with regard to members of the same political community; and then an outsider is admitted to participation in political rights only by being received into the community,

and to procure or to permit this reception is left to the discretion of custom and prejudice. The political development of Rome was in harmony with all this without being altogether determined by it. Its original town-community was indeed obliged, by the course of events, to construct legal forms for the regulation of intercourse with those who were not citizens, in addition to the native law according to which they themselves lived; but for a long time this original community continued sole sovereign over the growing multitudes of conquered subjects, in as far as Public Law was concerned, and it was but slowly that the rights of Roman citizenship spread to the provinces. Previously these had been simply rifled for the benefit of the metropolis, and given over as a prey to the covetousness and tyranny of her officials; and even when the imperial government abolished this metropolitan privilege, it still did not loose the bonds of slavery in which a great part of the population languished.

After slow historic changes, Roman Law at a later period again began to restrict the national legal customs of more modern nations. Not only did it at the time encounter suspicious aversion, but even at the present day it is reproached with having caused the loss of much legal insight which was of the very essence of the national spirit of different peoples. It does not lie within the scope of our brief survey to determine, in reference to this reproach, the limits of its validity; we are more concerned to remember the beneficial effects which resulted not so much from the introduction of Roman Law, as from the way in which all relations of life became pervaded by the spirit of Roman Jurisprudence. It is owing to it that there have disappeared the poetic, significant, and spirit-stirring forms of legal administration and carrying out of sentences, but also simultaneously with them the barbarous justice that was exercised with so much fantastic pageantry; to its cool clear logic it is due that completed actions, incipient attempts, remote intentions, and obvious or merely supposed inclinations, not yet put into act, came to be no longer indiscriminately regarded as deserving of one and the

same sentence; that different offences were no longer visited with the same frightful and unvarying measure of punishment, which customary morality (in such cases always too severe) or examples of Biblical history seemed—to an offended sense of justice not much used to draw distinctions—to demand.

§ 4. All through the storms which disturbed the beginning of the Middle Ages, the thought of the solidarity of mankind had been kept alive only in the Church; and it had regard rather to the heavenly goal which men had in common than to any ordered action and reaction on earth. Afterwards the Empire sought, but with very imperfect success, to bind together at least civilised Christendom in political union; any consciousness on the part of society of being an universal human community had been lost amid the multitudinous fragments of nations which struggled on with difficulty, in conflict with one another, and without being able to take any comprehensive view of their mutual relations; there were indeed families and tribes, corporations and communities, nationalities and kingdoms, but no political construction deserving of the name of a State. This kind of dispersed and fragmentary social life, notwithstanding that it produced here and there some splendid fruit, was not favourable to the growth of civilisation; society was first delivered from it by the growing absolutism of kingly power, which (at first with the help of the towns) broke the independence of the feudal lords, just as these had already destroyed the freedom of the common people. Where this subjugation of the vassals took place after a long struggle and over a wide domain, the prince might not unjustly identify himself with the State, for he in his own person represented the political unity of the whole. And this not merely formally, in as far as his sole will was supreme; in addition to this, a considerable part of the intellectual store which was common to all, and by which the national consciousness was nourished, was to be traced to him; wars, although carried on without reference to the real needs of the whole and merely for the sake of dynastic interests, yet accustomed nations to internal solidarity, and to that

jealous national hatred without which no young state becomes great; and many undertakings in art and science, although due to a liking for useless ostentation and other misguided impulses, yet furthered civilisation by the abundant means that were placed at their disposal.

The condition of society certainly changed according to the disposition and insight of the rulers, but this Absolutism was very far from being a return to oriental Despotism; and however strange the forms which sovereign power took here and there, the idea which both rulers and subjects had of it was founded upon entirely different principles. The sovereign was neither the possessor of the whole country nor the sole source of all private rights, which if due to such a source are not rights but only favours bestowed; and powerful and fierce as were some of the attacks made upon these rights, they were either regarded as violent and illegal measures, or were based upon previously established ordinances, and though the content of these might be arbitrary, yet the reference to them showed that it was not a retrospective and baseless decision, given after the fact, and applying only to the individual case, that was taken as the rule of procedure, but a general precept affecting the future. But not only did the power of rulers find a limit in this recognition of general rights which it could not evade, but also their claims to majesty could not quite do without some substratum of respect for the people over which they were supreme. It was not merely distinction of descent which ennobled the kingly office—or perhaps this very distinction itself consisted in the transmitted heritage of kingly rule, the worth and dignity of which depended on the worth of the people ruled. Hence it happened that though the resources of a people might not be always used for their own best advantage, they were not employed exclusively for the personal benefit of the ruler; it was felt necessary to glorify the name of the country from which a prince took his title; under this name was veiled the thought of the State, which now again began to come into prominence; in all external relations the prince felt himself to be the repre-

sentative of the State, but in relation to his subjects he was more apt to lose this consciousness. Hence we find that this absolutism has a paternal character, and there are very numerous examples of princes who sought to employ the whole strength of their people for objects in which they thought they discerned, not their own personal advantage, but the good of the whole; and we can easily understand the subsequent transition to a much-governing bureaucracy, the activity of which was not particularly useful to the welfare either of the prince or of the people, but seemed to be advantageous to the orderly maintenance of the State, the notion of which had not yet found its right place with regard either to the notion of Society or to that of Government.

Respect for the kingly power in the minds of subjects was only to a very small extent based upon general convictions respecting the necessary order of human affairs, and not exclusively upon that personal feeling which results from long-continued intercourse. Like almost all the institutions of the Middle Ages, this sovereign power was based upon historical tradition, and its justification, limitation, and extension upon treaties and concessions, which, though they may have been brought about by force, became in their turn a source of law, and grew to be consecrated by prescription. In this way conflicting legal rights of individuals had long been maintained; when finally the power which became supreme was victorious, it—in as far as it was victorious—became another case of acquired right, which now had a place in history, and continued to influence its course. Even the Church, when it alternately confirmed and attacked secular power, did not act in the name of universal principles of right, but proceeded upon isolated historic facts of confirmation and remission. This general bias of the time towards deriving the binding force of an existing condition not from one general source of all law, but from its establishment upon the factual validity of earlier conditions, favoured the development of the notion of legitimacy, that is, of a kind of legality that rests not upon natural universal right, but upon the historic

accumulation of acquired rights. Hence, in point of fact, the beginning of all legitimacy is illegitimate, although it need not be at the same time illegal; even where the rise of any power is due to moral impulses of personal feeling or common consent, the character of legitimacy properly belongs to it only at a later stage of its existence.

In proportion as absolutism consolidated the connection between different parts of the State and removed the restrictions which hindered their reciprocal action, it taught society to feel itself a community, and roused it to further efforts which became dangerous to the stability of absolutism itself. This supreme power did not fully accomplish its natural task; although exerting every effort to make all the forces of the nation directly serviceable to the State, and on this account hostile to all subordinate legal power which in any degree withdrew power from itself, it yet did not succeed in breaking down all those barriers to its own authority which were at the same time hindrances to the free movement of society, and which, like it, were based upon traditional custom, but were not, like it, capable of justifying their existence by rendering great services to general progress. When the struggle between these powers began, men became more conscious than ever before of the contrast between absolute natural right and historic and legitimate right, as a ground of dispute; even in our own day attachment to the one or the other distinguishes men's convictions as regards the political constitution of the State, as regards international relations, and finally as regards the educative, controlling, and punitive power over its members which society ascribes to itself. We will now for a brief space devote our attention to these still influential questions, leaving undiscussed the immense abundance of various social and political constructions which have filled up the period intervening between antiquity and the present time.

§ 5. When the Roman looked beyond the boundaries of his own kingdom and noted the similarity of capacities with which Nature has endowed all nations, and seemingly predestined them to unity, he recognised that all men belong

to one Human Race. For Christian thought the place of this notion was taken by that of Humanity, men being regarded not specially as called by likeness of natural gifts to likeness of joy and sorrow, but by likeness of supernatural appointment to help make up the composite whole of a complex system of life. Finally, in the present day the expression Society of Human Beings is preferred, and it indicates a new change in the way in which the matter is regarded. In the notion of the Human Race, the prominent thought was that of an Universal, existing in Nature, and exemplified in every individual; in the notion of Humanity, the prominent thought was the idea of a Whole, that makes the Individual the means of its realization; in the notion of Society, the Individual plainly stands out as both goal and point of departure. Society does not exist for its own sake, and its ordinances are not ends in themselves; society is formed and its internal relations developed, partly in order to compensate the needs and deficiencies of individuals, partly in order to make use of the capacities of different individuals for the mutual benefit of all; but the general order which results from this systematization is only valued in proportion as it produces some good result which, coming back to the individual, is consciously enjoyed by him.

In the unconcealed expression of this conviction even well-meaning persons often see a tacit threat of opposition to nearly all the forms under which human life has always hitherto gone on, and still continues to go on—to the institutions of morality which, in family relations and social intercourse, restrain the caprice of self-will; to traditional respect for the rights of property, and at the same time to everything that hinders the free exercise of this right; to the grouping and dividing of nations by political boundaries which have arisen without reference to social needs; to that self-sacrificing obedience which the State imposes as an inherited obligation upon its citizens, generation after generation; to the general duty of respecting obligations of historic growth which happen to conflict with temporary needs; finally, to all that could call

in question the sovereign power of society to rearrange its construction at any moment. It is believed that if this mode of thought were practically accepted, it could only become the source of an instability and lack of rule which would cause the speedy disappearance of all the most treasured possessions of humanity, and that there ought to be upheld in opposition to it, the absolute authority of those intrinsically binding rules of life to which all human striving after happiness has to submit as to a divine order.

And certainly all that we have here referred to is called in question by this mode of thought; but not in order to be denied—on the contrary, in order that it may be reaffirmed, and for better reasons than before. The modern idea of Society and its imprescriptible right of autonomous legislation is not new in itself—it is new only as the final and consciously formulated expression of a presupposition which has at all periods of history driven men to attack existing relations, and which too is almost inevitably supreme for some time in the life of the individual. For all of us are earlier conscious of the restraints which the condition of society imposes on our activity in many directions, than we are of the grounds of their justification, and of those return services for our benefit which that society renders and which are as omnipresent, and hence as unnoticed, as the atmosphere, the pressure of which holds our bodies together; with that well-known inclination to neglect all middle terms which characterizes Idealism of all kinds, youth is accustomed to demand *empty* space in which to exercise the free wings of its soul. It learns by degrees to understand the value of resistance and friction, and then recognises in the restraints of human relations the unavoidable modification which every ideal must put up with when it is realized in a community of finite beings. The same revolt against the existing order, which is to some extent a reasonable result of unjustifiable evils, and is to some extent carried beyond its due limits by the confusion due to passion, has repeatedly in the course of history shaken the whole fabric of society; but how-

ever often this storm of revolt may have threatened to destroy all those established forms of human relation which we regard as sacred, and may for a brief period have actually destroyed them, the waves have always at last sunk down again leaving these same forms, as a plain indication that it is only the misunderstanding of passion which fails to recognise them as what they are—that is, as parts of an organization which society itself (just in order to partake of the good which it seeks) would have to assume consciously, if it had not done so unconsciously, from some obscure impulse, far back in the course of history. Now what distinguishes our own time from earlier times is chiefly the extraordinary facilitation which has taken place in the exchange of opinions, views, and experiences, and the proportionally high degree of clearness with which we are able to survey, in long periods of past time, like movements of human society with their motives, their degree of justice, their mistakes, and their issues. Therefore if the present age again takes up the supposition that society ought to be self-ruling, it will not want for warnings against errors which experience has long since shown the destructiveness of; if it is able to develop the principle in peace and without being roused to passionate convulsions, we may hope that the new interpretation which it will give of the foundation of human duties will not endanger the continuance of any of those forms of order upon which, from the beginning of time, the value of life has depended.

But in fact it is not the mere actual continuance of these moral forms that will content the opposers of the modern view; they ask to be given another reason for respecting these forms. It is demanded that the validity of great social institutions should be based not upon proof of their usefulness or even of their indispensableness for the preservation of society, but on some inherent and absolute right in them to fashion human existence, however much its needs may change with changing time; it is required that they should not have merely the significance of *axiomata media* of order proved by experience and found to be conducive to the greatest good of the

whole, but that by their own intrinsic majesty they should be ideals which men are bound to accept, and to follow which gives worth to life. Those who hold these views meanwhile impute to the effort of society to develop itself, a one-sided desire for material welfare as its source. It is certainly true that the majority of mankind are always inclined to this, and certainly particular periods, the industry of which has to make up for the deficiencies caused by previous ignorance or idleness, are especially exposed to this danger. But neither does the general principle of social self-development in itself exclude the satisfaction of the noblest mental needs from the list of our aims, nor have they been always excluded by practical efforts in this direction. Men have taken upon themselves many sacrifices in the name of freedom, and on the other hand many and great mental advantages have been sacrificed for the sake of rules of human life supposed to be of absolute validity. Whatever errors may be committed in practice by ill-regulated passions, the theory of the autonomy of society is free from the reproach of base egoism; it can reckon the unconditionally binding dictate of conscience, as readily as it can any existing natural need, among the actual conditions which must be considered in any attempts of society to determine what its order ought to be. This theory, too, has at heart not merely material prosperity, and the unconstrainedness of individual wills; it too, since it wishes to satisfy at once all moral æsthetic and sensuous needs, seeks the kingdom of heaven here upon earth, or at least such an approximation to it as is possible upon earth; but it does indeed seek all this in a way different from that which is sometimes assigned to it.

We here again renew the old war which we have so often waged against the worship of empty forms. It is lamentable when Science degrades the rich warmth of reality to mere representations, wholly devoid of interest, of reciprocal action between Unity and Plurality, Finity and Infinity, Centre and Periphery; it is still more deplorable when Art and Religion, instead of gathering enthusiasm from that which warms all

hearts, seeks what is highest in dogmas and symbols, the signification of which, if it is ever grasped, can produce nothing but empty astonishment; but it is wholly unbearable when social and political life are attempted to be forced into forms which signify something or other, but help men not at all. And yet how much has been required of us in this way by the profundity of our own time; how often has the attempt been made to deduce from comparisons analogies and symbols, of which we can understand neither the justification nor the evidential force, that which can only be derived from practical needs which are actually felt! Following the comparison which had already proved a failure in the hands of Plato, the different ranks of human society have been obliged to submit to be regarded as an imitation of bodily functions; at times when astronomy has impressed men's minds, the different gradations of relationship between the central body of a system and its planet and between the planet and its satellite, and the complicated regularity of their orbits, have seemed to exhibit a mysterious type of political order; less arbitrary is the procedure of those who seek the exemplar according to which the articulation of the social and political organism is to be carried out, not in any one isolated case in Nature to which another and contradictory case may always be opposed, but in the very ground and base of all things, in the nature of God, in the Trinity in Unity, in the reciprocal action of the divine attributes. All these attempts forget that what is right for one thing is by no means also appropriate for another thing, which is really dissimilar, or which perhaps does not even appear similar; what is just in these comparisons is not valid for us in virtue of the analogy—but it is because that which is just is quite independently and originally valid for the relations with which we are concerned, that the analogy may be conveniently used as an ornament of our discourse upon such subjects, without however having any further evidential force. More deceptive than these arbitrary fancies and equally baseless are views which would regulate human relations according to notions which have a wider application, which through

their own power constitute themselves supreme principles, and the expression of which in phænomena would seem to be the necessary business of all reality. As logically the particular is subordinated to the universal; as rest is physically the result of equilibrium, and movement the result of the reciprocal action of unequal forces; as we derive æsthetic satisfaction only from a plurality which may be apprehended as a clearly discerned unity: so also, it is imagined, is society bound—in the separation and subordination of classes, in the division of labour and distribution of rights, and in the connection of the whole under the unity of government—to exhibit those fundamental ideas of reality in actual life. I say *to exhibit*—for certainly what these views regard as of primary importance is not that such social arrangement should be useful or necessary or unavoidable; they are required, not to meet a want, but to exist in order that those formal notions of order should be reflected in them. But the end of human society is not to act proverbs or to present *tableaux vivants*, the symbolic meaning of which may delight spectators dwelling in other planets; human life, with the infinity of struggles, passions, pains, and cares which it includes, is far too earnest to be used for such a purpose. The only order that can be obligatory for us is that which in some actual and legitimate causal connection is indispensable or helpful for the accomplishment of our human destiny. I do not mean by this that the organization of society should be limited to some slight and rough systematization corresponding to the most pressing needs, and should despise every arrangement the ideal significance of which might adorn life; in as far as this significance is vividly felt it is rather itself to be reckoned among the conditions which effectively promote our improvement; but it must be felt in order to be justified. Every form of which the symbolic or speculative meaning is plain only to the erudite or in isolated moments of reflection, without rousing or restraining any activity in real life, is an artificial thing that has no binding force.

A general over-estimation of human affairs, of which our

philosophy is not altogether innocent, produces or favours these errors. For a long time historical existence was regarded as a confused stream in contrast to the immutable order of Nature; subsequently reflection, finding in it no less than in Nature, traces of intelligible development and system, grew accustomed to regard the forms in which this intelligibility was expressed as being ends in themselves, in much the same way as those which are pointed out by concepts of kind in Nature. As Nature brings forth animals and plants, in order that there may be animals and plants, and not for any other reason, so the political construction of the State came to be looked upon as the evolutional end predetermined and prefigured by its eternal Idea. The State itself, it was thought, should exist for its own sake alone—to produce a State in order that there should be a State being part of the business of mankind, who are called upon to realize this among other forms of their organization — the concepts of such forms (as ends in themselves and eternal) being regarded as the goal of human development. This view naturally has a dangerous bias towards doctrinaire deduction of political principles; it believes that there is an eternal Idea of the State not only in the sense of a permanent task which it has to accomplish, but also in the sense of a type which in all the detail of its permanently binding systematization is a form that ought to be realized for its own sake, independent of any other purpose. We cannot agree with this view either in regard to the State or in regard to all the other forms of human life which with the State have been concatenated into a series of stages in the development of the World-soul—stages which that soul (in the part of its path in which it wears human form) has to go through, in order that in each successive stage it may realize its own being with increased perfection. All these developments seem to us to be not individual phases and forms of heavenly light, whose outline and configuration are actually filled by the Supreme Good, but forms of human effort in which men struggle to reach that Good. There is no real subject, no substance, no place in which anything worthy or sacred can

be realized except the individual Ego, the personal soul; beyond the inner life of the subjective spirit with its consciousness of Ideas, its enthusiasm for them, its efforts to realize them, there is no superior region of a so-called objective spirit the forms and articulation of which are in their mere existence more worthy than the subjective soul. It is imagined that the objective spirit reveals itself in the mere forms of social life—but all relations between individuals are of worth only in as far as they are, and because they are, not only *between* those individuals but also *in* them, being felt and enjoyed in living souls according to their worth. There is nothing gained in the existence of family relations, if by family we understand merely the formal connection between parents and children; in this sense animals and many of the plants in a garden are parents and brothers and sisters, but it is nothing to them; that which ought to be realized is the sum of the feelings which such formal relations produce in the minds of those who belong to one family, their minds being like foci in which alone the rays that elsewhere are without meaning concentre to form a bright and living picture. And of just as little consequence is it that Political Society or State or Church should simply *exist*, or be developed in this way or that; if all these have necessary forms which men are bound to keep to, the binding force of such forms always depends upon the degree in which they correspond to permanent or temporary human needs, and are capable of being brought nearer to perfection both in themselves and in those external states in which they can be realized.

§ 6. Radicalism is accustomed in atomistic fashion to oppose the individual to society, and absolute and inalienable personal rights to social privileges and restrictions. But it does not succeed in showing how an isolated human being can be a subject of rights. Against the powers of Nature, the ravages of disease, the fierceness of wild beasts, we can establish no right to the security of our existence; we feel that what Nature has endowed us with is only more or less extended capacities and the wish to exercise them; but our natural

claims only become rights when there is some one else who can recognise them. It is certainly true that they then become rights not merely to the extent to which recognition is actually accorded to them, for the recognition may fail where it ought to be forthcoming; but it is equally true that this recognition, when it is accorded, does not consist in a bare perception of rights attaching in finished completeness to individuals as such without any reference to reciprocal intercourse. Not only to fear the claims of others as a power that may possibly be turned against ourselves, but also to respect them as rights, is a thing to which we can be compelled by nothing but the feeling that we are morally bound to help forward the accomplishment of the task to which mankind are destined (and which society alone makes possible) by renouncing absolute freedom of arbitrary individual will. Our right is something which another feels to be obligatory, expecting in return that we shall be similarly bound towards him. Therefore if we speak of the original rights of human persons, we here regard each man not as a solitary individual, but think of him, under the concept of a person, as one who is in intercourse with others, as member of a society of which all the constituents are not indeed always acting and reacting upon one another, but still only have rights, as regards one another, in as far and for as long as this reciprocal action goes on.

It may here be regarded as sufficient (though the thought is not in such a case apprehended in quite the same way) to admit that the opportunity of making rights effective first occurs in society, but that their actual content remains fixed, as a series of requirements to the fulfilment of which man's destiny carries him, in anticipation of all special relations. When the transition is made from theory to practice, it is soon seen that these anticipatory demands consist only in extremely general claims; and that when we come to the question of how a number of men are to live together in the same world, how they are to make a common use of their resources, and how to manage their sources of enjoyment, these claims need much

more close and definite limitation before they can be carried into effect. Here we may make a distinction between two things that can never be separated in reality. When a number of men live together in one community, there daily arise a multitude of ever-recurring similar cases of collision between conflicting claims; and hence to make any kind of rational existence possible, it becomes necessary to force individual wills to give up their freedom in some definite degree. The rules of such renunciation (concerning chiefly relations dealt with by the Law of Private Right) are thought to have binding force because they are, in general at least, the dictates of an ever-present reason, founded in the nature of men and the nature of things, and hence receive fresh confirmation at every moment. The case is supposed to be quite different as regards those legal determinations which have grown up as time went on, and which, embracing and enclosing the whole life of man, set to his arbitrary will bounds for which no justification can be found either in the notion of human destiny or in the nature of things. It is thought that to allow these customary arrangements to continue in force is to resist that eternal law of reason which requires that all human affairs should be continually guided directly by its own immutable laws.

It is a matter of course that among the conditions, which are only historically explicable, there are primarily reckoned political relations and the division of society into different ranks, but the line of demarcation has not always been steadily fixed; communism shows that even essential parts of the Law of Private Right may be reckoned among those laws and legal institutions which seem to drag on their existence like a slow disease. This very fact shows the untenableness of the whole distinction. If man could live his destined life in solitude, and if he entered only incidentally into social relations, then indeed no form of society which had grown up historically would be binding on him without his individual consent. But man has no power over the place and time of his birth, both of which involve his life from the first in a network of

conditions that have grown up historically; he does not rise to the independence of which his nature allows without the assistance of others, who in this very work are protected only by an historically established reign of law in his society; his mental development would be a nullity if the same condition of society did not bring to him in countless ways the material of mental growth, and aid him in making use of it. Thus then before he becomes a person having rights concerning which he can dispute, he is profoundly indebted to the institutions of society for the very development of his personality. And the same thing holds of society as a whole. If a number of beings endowed with mind, without ancestors or previous history, were suddenly to arise in space, having similar natures and being at a similar stage of development, they would be at liberty to reconstruct their social order at any moment by arbitrary convention. But any human society embraces countless gradations of age, with just as numerous gradations of rights and obligations, of rational insight, and of helpless nonage; hence it can never, as a whole, constitute one subject, able in real truth to exhibit and realize a homogeneous general will; it must always regard the resolutions which it takes as binding even upon those of its members who were incapable of taking part in them, who will therefore on the other hand be unable to refuse to recognise, as having a right to exist, those transmitted conditions which it had no hand in establishing. We find nowhere realized the assumption of Radicalism, that in the construction of human society an altogether new departure might be taken, or the past be treated as of no account.

This, however, is in fact only one aspect of the matter. History continues its course, and the conditions by which one age seeks to order human life can neither furnish irrevocable rules for the future, nor have, as means for the attainment of human ends, the unconditioned majesty of the moral commands themselves. Only it would be an error, destructive of the security of human existence, to treat obsolescent institutions as being in themselves invalid, laws that

are growing unfair as becoming naturally extinct, and innovations of which the intrinsic justice is indubitable as though they were legally established claims. It is just the historical connection of all things which makes that which is growing old remain a power still to be recognised and to be got rid of in a legal manner; and new impulses to development cannot grow up unrestrained as in empty space, but must come to terms with that which already exists. Not even a condition that owed its origin wholly to unlawful force can, when it has subsisted for some time, be summarily set aside as invalid with all its consequences; the life of society could not pause from the time of its establishment, nor hold back from all connection with it—engagements laudable in themselves will have been entered into, legal agreements of unquestionable validity concluded, and the prosperity of society advanced, all in formal recognition or acceptance of the illegal condition; and if this unjust foundation were done away, it would be impossible to give up along with it the covenants and gains in negotiating which men had had to make use of it. Still less can that which was once law disappear of itself simply because the spirit of the time has changed; the consequences of such law will have pervaded society in all directions with personal rights and duties which can only be sacrificed to the new condition that it is desired to establish, by means of compensation and voluntary renunciation on the part of those concerned. To accept this view is the moral duty of all parties; the generation that is going out cannot bind all future ages by its own conceptions of life, and that which is growing up cannot lay exclusive claim to all the world, seeing that it has been brought into possession of it by those who went before.

§ 7. We see that men of the present day led by such convictions are in a variety of ways occupied in seeking for legal forms which may admit of the necessary progress being made without breach of legal continuity. These efforts can only be successful in particular directions; the historical work of humanity cannot once for all be brought up to a

point from which onwards all further development may proceed without struggle as naturally resulting from the final adjustment of the social mechanism. It must suffice if men will accept the guidance of general principles which are favourable to this view; difficulties there will always be, either old or new, which at the moment when they are most strongly felt can be obviated only by temporary expedients, and not fundamentally solved for all future time.

The individual will submits more easily to any limitation, if this appears to be in fact an unavoidable prerequisite of social life; but it is irritated and offended if the same demand is enforced upon it as an original right of society, without regard to this practical signification. As a matter of fact, society will always exercise an educating, guiding, and protecting power over its individual members; but among the first of those general principles referred to above must be reckoned the maxim that society should not formally use this influence as a right belonging to it, nor (as is always very likely to happen) systematize this in permanent institutions to a much greater extent than the nature of the matter requires. Of all that is demanded by moral custom and the spirit of the age, by habit and fashion, no more should be made law than is indispensably necessary in order to preserve social life from the encroachments of rude and arbitrary caprice; and these laws will have to take the form of prohibitions, not of commands. Without doubt also it is the interest of society that the culture of its members should reach a certain stage, and should take some definite direction in preference to others; and we do not in the least oppose those who look upon guardianship of this interest as an exalted part of the historical work of society; but desirable as it is that this conviction should be powerful in the minds of all individuals, and should strengthen their readiness to acquire such a degree of culture, yet it should by no means be regarded as the source of an authority entitling society to claim obedience for any educational system which it may see fit to prescribe. The moral spirit which should animate humanity will every

where be more perfect in proportion as it is more immediately guided by the loftiest views; but the mechanism of social arrangements has to be based upon proximate and unquestionable grounds. The historical work of any age and the proximate goal of its culture is not written visibly in the heavens, that all who run may read, but is interpreted by individuals according to their intelligence; if the uncertain content of this interpretation is made a legal basis of social institutions the result is apt to be a guardianship of the many by the few which, though acquiesced in quite contentedly in as far as it grows up spontaneously, always offends when it appears as legal ordinance. Hence society has not only to refrain from fixing its requirements in too great detail, but even that which it demands it must (in as far as it demands it) regard as being the condition of a return service which it is itself able to offer. Upon this sober ground of reciprocal and general interest, public institutions will rest more securely than upon pretensions to insight into the eternal cosmic order, of which no one has been appointed the exclusive interpreter.

And these return services of society consist far more in the natural reactions of the interests which it embraces, and which it has to make men respect, than in advantages afforded by it expressly and of set purpose. For society does not establish and confer individual rights, but recognises them and guarantees the possibility of their exercise, on condition that individuals in some respects renounce their unrestricted use. It only confers privileges which arise from its own constitution — governmental posts which cannot naturally belong to any individual, because they are themselves a result of the voluntary renunciation of other men; for the rest its power is limitative, and its activity (in as far as legally determined) is exercised chiefly in affording security and protection.

The amount of limitation which it can impose upon individual wills must itself be but limited. No system of human regulations can claim authority to dispose irrevocably of a man's whole life; every one must be allowed liberty to

leave the State to which he belongs, his social rank and calling, and his Church, and to break national ties; every one must be free to throw off those conditions of dependence into which he has been born—not indeed unconditionally, and not without having paid the obligations which he owed, yet still as a right and not a favour it is due to him, being a free person, that he should at his own choice give or withhold at least a supplementary agreement to a condition of things into which he came at first without any agreement on his part. And indeed freedom cannot always be restricted to this possibility of separation when existing relations are felt to be irksome; nor can society everywhere require that if any man disapprove the laws that rule in a given region, he should quit that region; but while entitled to treat in this fashion the wilfulness and insubordination of individuals, it cannot take such an attitude towards any wider current of change in the general mind. It is not the duty of society to accommodate itself unresistingly to new claims; but where it loses its own unity and is divided on essential points, a conservative minority cannot permanently exclude a dissenting majority from participation in the benefits of social order to which it has a multitude of traditional claims—claims that cannot be extinguished by its divergence from rules which are not immutable. It is easy to scoff, and to say that in this way the majority of votes (so often irrational) would decide human destiny; and to demand that votes should be weighed and not merely counted; those who make such a demand do not perceive the tremendous assumption involved in taking for granted that there anywhere exists an infallible organ able to weigh votes in the manner required. Even to count the majority of votes is hard enough; and we must content ourselves for the most part with this imperfect means of decision; taking care, however—with due recognition of its imperfection—that it should, whenever possible, supply its own corrective. And practically this can only be done through the delays which the existing laws and constitution oppose to the realization of the new claims.

We can only hope from the influence of time that (as a result of that free exchange of opinions which must be allowed and fostered) beliefs may be amended, rash haste moderated, misunderstandings cleared up, vague dreams developed to practicable projects, and the abiding heart and seed of fluctuating efforts held fast and cherished—the greater weight of just opinion being thus in truth assured of victory over the mere majority of votes. It is indeed not impossible, and to some it may seem very probable, that notwithstanding everything, mankind will still go on permanently wandering in error; but this would be an evil fate that could not be remedied by any legal measures. It is not to be expected that every one should patiently acquiesce in this ill fate; we can praise the heroes of history who in doing battle against it either conquered or were destroyed — though in delivering this judgment we altogether transgress the boundaries of the consideration with which we are here occupied. For historical development, which remains ever superior to our poor political and social art, will not in the future any more than in the past proceed without much disturbance from breaches of law, *coups d'état*, and violent subversions of existing relations. Such historical events, which simply show that the guidance of affairs has temporarily escaped from governmental control, may be regarded as blessings or curses according to their results; but as long as it still remains a question whether human reason can guide the course of history, they can never be taken into account beforehand as admissible factors in its development. All coherent interest in the public affairs of mankind is injured at the root as soon as notions which are opposed to law are regarded as entitled to the practical guidance of these affairs; to build hopes upon arbitrary caprice which puts itself in the place of Providence, is like expecting the cure of some bodily ailment from the doubtful issue of a frightful disease artificially induced. Let us appropriate the golden saying of Kant—*If Law ceases, all worth of human life on earth ceases too.*

§ 8. We have spoken of human society as existent and as being actually occupied in giving itself the organization corresponding to its destiny and its needs. But when the notion of Society first arose, men had lived for thousands of years divided into various states, between which there had constantly been hostile contact; and for a long time before, each of these states had by an organization of its corporate life proceeding from quite other causes, anticipated the work which social theories are supposed to begin. Hence it may seem useless to distinguish the notion of Society from that of the State—the State being the only form in which hitherto communities embracing all the interests of human life have been able to subsist. Yet it is not quite useless to consider which of the two notions presupposes the other — whether the State is to be regarded as the basis of all possibility of human solidarity and the source of all rights and duties; or whether the destiny of Society should be considered as the goal for the attainment of which Society itself requires state-organization as a necessary condition. In the latter case Society may be entirely hidden beneath the State, as the root which is the source of growth and nourishment below the spreading ramage of the developed tree; but amid all the storms that might hurt the latter, hope and help would be derivable only from a knowledge of the vital impulse that flows forth from the former. The foregoing remarks will have made it plain in what way we ourselves should answer this question; but the characteristic development of modern times gives it another more practical signification. It makes it seem at least possible to hopeful minds that the numerous states which still divide the world may finally be replaced by one Universal Society, which just on account of its universality would no longer have altogether the form of those states the work of which it would undertake—or that at any rate, without the demolition of existing political structures, Society may be called to exercise over them a power which hitherto it has only possessed by their means.

The increasing relations between the different divisions of mankind have indeed in a great measure changed the signification of political boundaries, and have given new stimulus to the thought of cosmopolitanism. Similar forms of social intercourse and way of life, and like notions of honour, duty, and good manners, are diffused over countries and among the various ranks of their populations in proportion as the intercourse between these becomes general; not only are arts and sciences to a very large extent cultivated in similar ways, but their most splendid productions are being more and more brought into connection, so as to form one store of universal literature accessible to all; the Church, not indeed embracing all the interests of life but cherishing those which are noblest and highest, has for ages spread its arms abroad, regardless of the boundaries of states, and distinguished chiefly by a complex organization, bound neither to territories nor to nationalities; innumerable associations for the pursuit of economic ends have long reckoned among their members men belonging to different states, such associations being made possible by respect for commercial obligations, kept up by mutual interest; thus, over a great part of the earth the individual finds himself supported and restrained by a spirit of social order which is not directly due to any political connection between those whom it affects. It will be objected that in the fortunate case of voluntary performance on both sides of what is equitable, this international intercourse could only dispense with state-help in the same way as under similar conditions it could be dispensed with in the intercourse between individuals within a country; while its general possibility depends upon the further possibility of calling upon the governments of distant countries to aid, in virtue of treaties, in compelling the rendering of reciprocal services which have been refused. And this is certainly the case at present; but the cosmopolitan theory will reply that it is so only because hitherto individual states which have grown up historically have regarded themselves as constituting divisions within society; and because, each recognising as binding on itself

its own special legal customs (likewise of historical growth), none has been ready and willing to undertake all the obligations of such international intercourse, each requiring special treaties as a basis of its procedure. An Universal Society would also not be able to dispense with administrative, legislative, judicial, and executive organs; but it would establish organs that would not have their action interfered with by the intricacy and diffuseness which the present plurality of states causes.

We will not discuss such projects in detail; to sketch out plans for the organization of a community is always hazardous. To deduce from the notion of a State its necessary functions, and to set up a special organ for each of these, and definite rules for the co-operation of these organs, is all quite worthless if it cannot be shown that men will give themselves up to carrying out and enduring whatever this logically developed organization of life may require of them. And it is a fact that careful consideration of men's nature and habits, such as can only result from many-sided knowledge of life and history, furnishes no ideal pictures of assured practicability; for however well-authorized and however respectable may be men's efforts to attain some yet unenjoyed good, their being so is never any guarantee that the use made of it when attained will be either respectable or admissible. The general conscience of mankind may slowly grow in insight into our duties and destiny; but the successive generations of living men who are to fulfil this destiny grow up each afresh with all the imperfections and faults of the breed; and it is seldom that those who come into power show themselves capable of establishing that better condition for which, when in opposition, they fought with good right against existing defects. Hence detailed plans for the future organization of society seem to us worthless, but very important the general thoughts and sentiments which are expressed in them; for these will be capable of giving a definite character to our treatment of actual historic conditions, even when the attainment of those general ideals has to be given up. From the

remotest times struggles between different states have filled the world with their noise, and the general temper of the present age—intent upon the development of all mental powers and material prosperity—very naturally doubts the authority of political constructions, which on the one hand claim that their organization shall embrace the whole of human life, and on the other hand are continually exposing the treasures which men have won to the most destructive shocks. And hence it is worth our while to ask, what the State is and must remain for Modern Society, and in what sense that form of it which has grown up historically can be transformed so as to harmonize better with the growing need which men feel for freedom of development.

Similarity of language is an indispensable condition of the civilisation of even the smallest communities; for without direct mutual understanding, extending even to the small things of daily life and equally possible for every member, we cannot conceive a society of which the members have all the interests of life in common. But within such a small circle the requirements of civilisation do not find full satisfaction; even for the supply of material resources foreign intercourse is necessary; and not less is there an effort of mind to supplement the one-sided stimuli received in daily intercourse by manifold contact with foreign but intelligible spheres of life. Hence where geographical conditions do not hinder, it is communities whose languages are similar that first draw near to each other; and the higher the development attained by art and science the more closely are such communities united in reciprocal sympathy and praiseworthy emulation, not only by similarity in their views of right and in institutions promotive of mutual intercourse, but also by the consciousness of common intellectual possessions. But as the individual does not know until he is in a foreign land all the worth of home, so also national culture and the feeling of kinship between those who belong to the same country only receive the finishing touch from contrast with that which is extra-native. This takes place in a less degree as long as foreign surround-

ings oppose to native culture nothing but barbarism, and in a greater degree when amid general civilisation the contrast is no longer between humanity and brutishness, but between the most refined and subtle peculiarities of national character and custom. Hence in the modern world the wide diffusion of many similar elements of culture has not caused the disappearance of contrasts between different nations, but has produced generally and in an intensified form those struggles towards unity which aim at combining as intimately as possible all the material and mental forces of races having one language—the object of such combination being partly that the intensified action and reaction thence resulting may ensure to the nation an honourable share in the human work of civilisation, partly in order to protect it from the arrogance which disposes every developed nationality to be oppressive towards others.

But mere community of origin, language, and custom does not suffice to build up the form of a State; it is not nomadic but only stationary peoples that have been able to develop their national life in this form. And, indeed, the territory inhabited by any people is not the mere locality in which the nation dwells and may be found, as plants and animals in their habitats and haunts—it has much rather to be considered as a permanent object of joint labour which first weaves into a strong and lasting fabric those elements, akin in language and origin, which before had had as it were a merely parallel existence. For the division of this labour causes the separation from one another of various branches of employment, and the indispensable action and reaction between these makes men feel the necessity of a fixed, comprehensive and complex administration; the transmission of the same work from generation to generation makes the history of the nation, and gives it the consciousness of an historical task, in the accomplishment of which are done the most splendid of those deeds which give exalted worth to human life; even those delicate shades of national thought and temper which constitute the spiritual possession of a people are more or less

connected with its modes of labour. A territory large enough to provide within its own limits a great variety of occupations, and rich enough to be able to do without foreign help except for adornments of existence which are not indispensable—belonging as an inherited possession to a people speaking one language, and bound to its native land by a wealth of historical associations, and exerting all its economic and mental forces under a strong and united government in order to fill its own particular place in the movement of civilisation—such a territory presents a complete picture of Human Society, and it can neither become enormously enlarged without losing its distinctive character, nor very much contracted without losing its importance.

In as far as the historical condition of things provides the material for such social constructions, and the possibility of introducing them without breach of law, attempts to realize them are justified; and it is neither to be expected nor to be wished that in the future these many-coloured contrasts should disappear. It is not to be wished; for even the desire that moral commands should rule all mankind with equal power, if it give rise to a demand for the extirpation of that variety, only betrays afresh the oft combated prejudice which would make reality a mere example of those universal laws, in obedience to which, alone, it is able to develop its living content. The whole of morality for the individual does not consist in this—that each has simply in a general way to fulfil the moral commands, and therefore each to be just the same as others; but within the limits of this obedience to the universal, it is the duty of each to develop his own individuality, and, by the good which he and none other can thus accomplish, help to exhibit and to realize the glorious results which the moral Ideas are capable of producing. The task of the nations is no other. They too are not meant to be mere general colourless examples of human communities which might, without suffering loss, melt into the uniformity of an Universal Society, but each has its own special forms of life to develop, without prejudice to the general validity of the moral prin-

ciples by which all its reciprocal relations must be regulated. Such a blending, however, is as little to be expected as it is to be wished. All the facilitations of intercourse to which we may yet look forward may suffice to compensate economic deficiencies, and to cause a salutary enlargement of the intellectual horizon of the nations beyond the narrowness of native prejudice; but they will never bring the great masses of mankind into such thoroughgoing contact with one another, that a growing consciousness of the duties of cosmopolitan intercourse will abolish all national peculiarities of character. As far as the last result has actually taken place—as, for instance, in the disappearance of many national characteristics of manners, costume, and speech—we must regard it as being for the most part pure loss, and only to a small extent as a sacrifice indispensable for the attainment of the advantages referred to. Hence we hope that through an ever-deepening conviction of the moral and economic unity of mankind, the progress of civilisation will thus more and more realize an Universal Society in such a way that its existence and the stability of its organization may be beneficially felt by every one who seeks after them; but on the other hand, we do not doubt that this great universal whole will always seem so vast and so impossible to take in at one view that each individual will still find indispensable for the feeling, thought, and action which fill his life, the narrower home which he can find nowhere but among his own people, in his own fatherland, under his own government.

Only a nation to which there have been left or given in the course of history those favourable conditions of existence which we have hitherto presupposed, can have at the same time means for the complete development of a State, and a natural impulse to such development. Wrecks of nations speaking different languages, which by the course of events have become attached to territories, the unfavourable position of which prevents their making up for the smallness of the population, may be constrained by strong economic interests to reciprocal ties; but their union, although it may embrace

a widely extended community of administration and of organization for defence, has rather the character of a Federation than of a State. The individual members are lacking in independence, and the whole in a permanent and natural unity; for even the economic conditions of countries vary in course of time, and parts which at one time seemed to belong to each other may at a later period show a tendency to disintegration. Regard to advantages which international intercourse, properly arranged, would of itself bring, has here become the determining cause for the construction of a political unity, all the essential conditions of which are not given; and the lack of these cannot be altogether supplied by the unifying force of a long history common to all.

The State is developed from Society by the recognition of an historical obligation on successive generations to maintain and increase a store common to all of material and mental wealth, which each living generation of men has to regard as a trust from past ages, and for the use and development of which it is answerable to posterity. Every association freely formed is entitled to complete liberty in the choice of its ends and means, and in every temporary alteration of both; the only thing it is bound to do is to make allowance for the minority who will not follow the new path; and as no one can have an indissoluble right to participation in an arbitrarily formed combination, the minority will have to content itself with such allowance. Life as a whole is no matter of free contract, but individuals are born into it; society at any moment is not entitled to ignore the legal constructions of past times or to fetter all future ages by its decisions; it has neither the right nor the power to make allowance for those who will not follow its changes of opinion. Prosperous human life is only possible when society endeavours to protect itself against itself, and secures all the essential foundations of its existence—not only the general principles of right accepted by the national conscience, but also those maxims of life and administration which its position makes necessary—against the influence of its own changeable moods, by the formation of

a strong and stable government that keeps watch over all the traditions of justice. The four elements which go to form the State are (1) a people speaking one language and having a natural interest in its own unity; (2) an inherited territory furnishing it with means for the maintenance of its independence; (3) a government which represents the historical continuity of the national mind; and finally (4) the general conviction that all freedom of individual development, all its struggle and its progress, must result from the possibility of legal harmony between the people and the government.

This too is an ideal the realization of which may be sought in various forms of the relationship between the people and the government. Certainly every constitution which is intentionally adapted to certain circumstances is, under such circumstances, to be preferred to any other which is not adapted to them; but in saying this we do not mean to deny generally that different forms of political constitution have different degrees of value. We are far from wishing to show from any doctrinaire grounds, which have no significance in practical life, that Hereditary Monarchy is a necessary institution; but we agree with the modern view that practically in it alone has been found the form of government which in itself and under present conditions offers the greatest security for steady development. We cannot hope by any possible discovery to hinder all disease and all evil and all unhappiness; there is no social institution which can prevent the possibility of its own abuse or imperfection in its accomplishment; and finally, there is no constitution which can secure full satisfaction to the restless and envious desires of folly—a satisfaction to which those who cherish such desires can have no claim whatever except as simply being members of the society. With regard to every form of government, it is necessary that no more should be demanded from it than is possible; but hereditary monarchy seems to afford more possibilities than other forms.

What is necessary above all is that the natural struggle between different classes of society, of which each pursues its

special interests as far as possible, should not become a struggle for political power; and this one condition it is that prevents Republican Constitutions from being salutary except under certain conditions. Where in a small state, the peculiarity of its soil and position or special historical circumstances seem to point out that all the members should have a similar occupation and similar sources of gain, this homogeneity of interests may allow a great number of individuals to take part in their representation. There have been agricultural republics, pastoral republics, commercial republics; but none of them have cultivated all branches of human civilisation until, having become rich, they have produced an aristocracy which left to the majority no political influence worth mentioning. The assumption of a republican form of government by a larger society with a multiplicity of occupations working into one another will always be detrimental to the many-sidedness of civilised existence; and wealth, being in the ascendant, and restrained by no counterbalancing power or individual currents of life which influence the whole, will make use of political institutions in a one-sided way for private advantage, or by stirring up opposition expose them to continual unsteadiness. It is fair that the different classes of society with their wishes and demands should be heard and considered by government, but it is not desirable that they themselves should constitute government. In every form of constitution in which either the supreme head or the governing body is elected, whether for life or for a fixed period, the jealousy of the different ranks and callings and beliefs have an undue influence, disturbing to the steady continuity of national development; it is essential that the highest power in the State should be raised above all competition, that the governing will should belong to no class of society; that it should not be forced to seek maintenance and gain and all that adorns life by the one-sided pursuit of any particular interest; but that rather the exceptional position which it enjoys should afford to it from the beginning all the good things of life, and leave no other goal for its ambition but the

glory of employing its power conscientiously for the preservation and increase of that which has been entrusted to it.

That society consists, as some say, of concentric or, as others say, of intersecting circles, or that it rises, pyramid-like, from a broad foundation, and that all these constructions require some indivisible central or terminal point—all this is indeed no argument for hereditary monarchy, which is neither a geometrical object nor a matter in which we are concerned to produce a picturesque effect. It seems to us to be of more consequence that a nation desires to see itself, its interests and its genius, embodied in some Representative Person; for this embodiment is in fact of psychological efficacy, because it is not mere abstract symbolism, but establishes a relation between persons, capable of pervading even the minutiæ of life with its influence—with living feelings of fidelity, reverence, admiration, and love on the one side, of justice, benevolence, and favour on the other. But this embodiment of the State is not necessarily presented in the unity of one supreme head; it may also be imagined to exist in an aristocracy, a patrician order of leading families; and so great is the natural inclination of the multitude to let itself be led, that if its interests and feelings are but considered to some extent, it will reverence even in this plurality of persons the embodied representation of the whole. But generally speaking a favoured class is more narrow in its prejudices (which are nourished by continual echoes from within), more arrogant in temper and more harsh in its conclusions than an individual whose position, raised above all comparison with others, needs no defence against the intrusion of claims similar to his own. We should sooner expect forbearance and the removal of unfair pressure of laws and conditions from an individual monarch than from aristocratic and democratic majorities, to whom on the one hand the greatest harshness of doctrinaire consistency and on the other hand cruel passion are made easy by division of responsibility and the impersonality of their resolves. But what history warns us above all things not to do is, by dividing monarchical power among a plurality

of individuals, to make that power an object of competition, each striving to get undivided possession of it by splitting up the nation into parties and unjustly favouring the more powerful interests.

The primitive leadership of tribal princes sprang from a sense of these reasons, but later developed monarchy did not; they, however, are the motives which permanently keep up in nations a readiness to regard the guidance of public affairs as attaching of private right, as a heritable possession, to the family to which in the course of history royalty has come to belong. The more definitely this ground of legitimacy has been recognised, the more necessary has it seemed to the nation to oppose to the possible abuse of this power representatives of popular rights; and thus there has been founded Constitutional Monarchy—the favourite political product of the last century.

§ 9. It would be interesting to know beforehand what later times will think of the Constitutionalism of the present day. They will certainly be wrong if they wish to give up its fundamental thought, which is that there should be an ever-renewed understanding between the living men of any generation and the government—which, to whomever entrusted, represents the historical Idea of the whole as opposed to the changing interests of the hour. They will perhaps have more reason if they doubt whether the system of constitutional forms which at present prevail are, taken as a whole, the happiest possible arrangement considering the circumstances of the time; and they will certainly be right if they hold that this system is not an ideal in the sense in which it has been lauded by well-meaning *doctrinaires*, as though it were the product of perfect political insight. The extremely unjust oppression of the third estate, which being overloaded with burdens was not able to command any regular representation of its interests, had aroused at the time of the Revolution passionate hatred towards all legal, political, and social distinctions; the not less oppressive hindrances which the antiquated forms of companies, guilds,

and corporations opposed to the free movement of labour caused even the more peaceably disposed of the reforming party to prefer the complete abolition of these institutions to the transformation which they so urgently required. Thus there arose the notion of a *Citizen of the State*—a strange theoretic invention, superfluous if merely intended to indicate those who without being under some other guardianship are directly subject to laws the same for all and directly bound by general obligations—but very dangerous if intended also to indicate that these legally equal constituents are also equal in political importance. I am indeed in complete disagreement with the prevailing opinions of the time, in that I regard this low estimation of the corporate element as our most essential fault. Of course we do not want to go back to corporations for the subsistence of which we can find no even plausible reason, in order to accumulate privileges for which there is still less any conceivable rightful claim; but on the one hand a living bond between those who are really connected would maintain the discipline which we so greatly need, but which yet we cannot enforce by means of general laws; on the other hand such combinations—representing partly the most important callings (agriculture, manufactures, commerce, art and science), partly the special local interests of different districts—would form the true unities, the representatives of which, by equilibration of the interests of each, would cover the wants of the whole.

I will not weary my readers by attempting to set forth the rank and number of these unities, but will merely remark that they cannot be of equal importance either among themselves or for every state; a more detailed determination of their co-operation is the business not of Formal but of Material Politics. Here, too, again, I am in conflict with modes of thought which are received with favour at the present day. As corresponding to the notion of *Citizen of a State*, these lay stress also upon the notion of the State itself in such a way as to imply that instead of political forms being developed by

nations to further the ends of their existence, we should rather regard the State as a rigid framework to which all national life must accommodate itself. It is certainly true that owing to the homogeneity of the needs of all human societies, the formal outlines of different constitutions are to a great extent analogous; and on the other hand, it is equally certain that some conclusions are valid only within the limits of the individual state from the representatives of which they proceed, and are commonly caused only by such circumstances as exist in these cases. But though it may hence be true that in particular instances this deification of the notion of the State may not have an injurious effect, yet it gives a false colouring to our endeavours; it gives rise to a superfluous abundance of doctrinaire wisdom, which seeks to centralize and establish as political functions much which should be alterable with altering conditions of time and place; while conversely it is disposed to approve and enact only temporarily measures which belong to the irrevocable necessities of national life. We owe the unification of Germany to the military resources created by political powers; but that readiness of self-sacrifice which secured its success resulted from love for the German fatherland, and not from enthusiasm for "The State"—the most various examples of which general notion Europe offers for our choice. In fact the more we regard this abstraction as the highest source of our rights and the recipient of our services, the more doubtful becomes the ground of our obligation to render these services to this one state and to shun as treason the lending of our support to foreign states. Other nations are not influenced by such ideas. When a supreme moment comes we hear, *England expects every man to do his duty*—or *France demands it*—or *Holy Russia calls her children, and the Starry Banner summons its followers;* it is only the strong hand to which our external affairs are entrusted that can raise aloft the national flag as a rallying point for our internal life too, and this national flag it is that we shall follow; the mere general State flag, without colour or device, which is waved by

theorists and party leaders, is hardly likely to attract an enthusiastic following. What we lament is not that great branches of commerce should be brought under public administration; for the needs of the nation itself may justify this measure; but we think that much danger will be incurred if the nation choose to regard its whole life as being held in fee of the self-created state, and to look upon the existence which is common to all, as a legal relation—hence seeking, with logical consistency, to replace the government, which is always an essentially political activity, by mere state-administration.

These are but theories. If I could specify measures that would enable them to be easily put in practice, I should believe that I had solved one of the great problems which exercise statesmen. Only this is clear—that existing institutions can never be adapted to the accomplishment of our wishes. To ensure to the votes of experts on every question that weight which is their due, by means of a representation based upon incorporations of the different classes, would no doubt be regarded as a punishable attack upon the rights enjoyed by the citizens of the State—rights which men have become accustomed to think can only be exercised by means of popular representation. And yet a simple calculation teaches us that though any mechanism of direct or indirect election by the body of the people may indeed afford to the individual the small formal satisfaction of having taken part in it, yet the further result slips out of his hands altogether—and it is party leaders and their supporters who take all decisive resolutions, without reference to the wishes and expectations of the individual elector. It is also clear that the proceedings of great assemblies are, at any rate, no longer the only possible form of such reciprocal action between the factors concerned as we should wish to see substituted for the present condition of things. On this point, indeed, we are not altogether without experience; and I suppose I shall not meet with overwhelming opposition if I say that it would be worth while to offer a prize for an answer to the question whether it is not possible to obtain the real advantages of

constitutional government without the form of popular parliamentary representation?

And from another quarter the existing order is pressed upon by Socialism; and Socialism, too, demands that the life of the community shall be established upon quite new foundations. But it has not yet been able to show that the introduction of the new order could be accomplished without the pressure which now falls upon one part of the people being transferred in all its burdensomeness to another; and just as little has it been able to show that the desired institutions have so much adaptation to practical life as would justify the attempt to establish them. The theory of the abstract State equally fails to supply a remedy; a system of privileges and obligations may be developed from it, but not any information as to the means of using the one and fulfilling the other. Here, if anywhere, do we need a pliant and active imagination that will be guided by circumstances and not by immutable principles; it is such alone that will not only be able to meet the ills which Nature sends, but also and above all to fulfil the task of alleviating the misery that springs just from the existing organization of social relations. No machine has yet been discovered which will work without any friction whatever, and Mechanics aims at no such impossible achievement; but it has means of diminishing the friction which does arise, or of rendering it innocuous. We would sooner look for the spring of such serviceable action, as well as for the capacity of counteracting immediate evils by known and attainable means, in corporate bodies, than in those unorganized assemblies where, for the most part, all that takes place is, struggles between some few wide and well-known party questions which leave difficulties of detail undecided.

§ 10. A great part of political evils is due to the international relations of states, and to the complete absence of a developed and recognised system of International Law. The permanence and obligation of treaties; the rightness or wrongness of intervention in foreign affairs; the difficulties caused in the case of hereditary dynasties by the political union or

separation of foreign or allied peoples—these have always been and still are points which are usually decided in individual cases upon grounds of interest, well or ill understood, and with reference to which fixed rules of justice have scarcely yet begun to be formed, far less have obtained general recognition.

To regard as irrevocable every treaty which has once been agreed to by two contracting parties would involve the assumption that these were possessed of superhuman wisdom; for only such could foresee that circumstances would never arise to make them change their mind, or to make the carrying out of the treaty senseless, or to make it turn out excessively injurious to the one side. Treaties between nations and their governments must be not more but less irreversible than these; since it is impossible that the will of one generation should bind irrevocably the generation which succeeds it. Not because centuries ago some old treaty established the eternal union of two countries, ought that union still to be held indissoluble; but only because the present mind of living men declares in favour of the agreement, and freely consents to it. If this free consent is wanting, all force of any treaty is wanting too, and the only obligation remaining is that of carefully discharging the legal claims, based upon its previous validity, which have grown up in course of time. It must be required that nations should respect a public treaty during the time that it is received as valid; treaties that have not been made public, inevitably succumb to the logic of facts; and when at last they are broken, no one can complain—since in fact they were concluded without due authorization.

The moral duty of trying to settle any strife of wills is limited in private life by the respect due to the personal independence of others; this respect preventing the interference of a third as long as the strife does not imperil his own interests. But no one denies to his opponent a right to accept the active partisanship of a third person, or to this third person a right to make the quarrel his own; it is only the privilege of coming between the combatants as arbiter,

and of not taking either side, that will be unwillingly acknowledged by him who is favoured and always decisively disowned by the other party The attitude of nations towards combats between nations is just the same. They have never complained of injustice when the number of their declared foes has been increased by alliances; they have never doubted that others had a right to become their open enemies; but the notion of intervention, which involves the assumption of arbitrative power over their internal affairs on the part of some foreign nation, has always provoked irritation and revolt. Nevertheless it is just this doctine of the right of arbitration that the science of modern politics delights to develop. As individual vengeance has been replaced by the public administration of justice in societies, so it is desired that at least in the circle of European nations bloody outbreaks of self-defence on the part of individual nations should be averted or suppressed by the verdict of the whole body, which now (in consequence of the intimate connection between the nations) sees its common interests threatened by every struggle. At present there is nothing wanting to this theory, excellent in itself, except the conditions necessary in order to make it practicable, and uprightness of intention in its advocates. The national Areopagus, the incorruptible integrity of which this scheme of international arbitration presupposes, does not exist; and it is hardly likely that it ever will exist except in the shape of a few great powers, which will adjust the claims of the less powerful in accordance with their own special interests. But even if in practice the egoism of these motives could be paralysed by a general representation of states in the arbitrative congresses, the analogy between this jurisdiction and that which an individual state exercises over its subjects would still be incomplete in many essential points. There would be lacking, for instance (1) the possibility of making the matters in dispute perfectly clear to a court of foreign delegates, who (being influenced by different national feelings and different historical memories) would be neither able nor willing to appreciate the value and

urgency of the claims and counter-claims that would be made; (2) the established rule of universally valid International Law, in place of which an untenable regard to passing expediency would be substituted by a narrow diplomacy, having regard only to the immediate future; (3) the absence of any personal interest on the part of the judges in the matter in dispute (an absence which could not be compensated for by mutual jealousy, which instead of making people anxious to decide, generally makes them only anxious to delay); and finally (4) the possibility of carrying out with certainty, against the resistance of the non-contents, any sentence that might be pronounced. Not *one* of the great international problems which have, so far, been taken up by European Congresses, has received a satisfactory solution; not *one* of the political constructions which they have brought into existence has showed that it is endowed with a capacity of permanent vitality; not *one* of those which they have suppressed has been so broken as to be prevented from subsequently disturbing the general tranquillity with ever-recurring convulsions.

No one can say what the course of history would have been if such or such conditions had been different; yet one of the follies of our time consists in this, that so often in historical discussions (which can regard only the actual, and not any merely possible, course of events) we allow ourselves to consider some brief series of good results (which is all that has so far come under our observation) as a justification of preceding perversities—not thinking that the very morrow may bring tardy retribution. And just because we do not know the future, it must be the business of politics, under all circumstances, to respect the Right so long as it is in any way cognisable; but where human wisdom is no longer able to recognise it with certainty, it is perhaps best to defend at all hazards that which one honestly believes to be right, and to commit the result to Providence; better than to act Providence oneself, and by maintaining a hollow truce to increase for society in future times, difficulties of which it will make quite enough for itself without any such addition.

# BOOK IX.

## THE UNITY OF THINGS.

# CHAPTER I.

## OF THE BEING OF THINGS.

Introduction—Three Elemental Forms of Knowledge and the Problem of their Connection—The Being of Things a State of Relatedness—Comparability of the Natures of Things—Necessity of the Substantial Connection of Finite Multiplicity in the Unity of the Infinite—Summary.

§ 1. THERE are certain problems concerning our origin and destiny—questions as to the significance of the world which surrounds us and our own position in it; as to the ends which are set before us in the great whole of cosmic order and the good things that await us in the future—which men have reflected upon in all ages, sometimes with passionate zeal that hopes to find at last a solution which yet has never hitherto been found, sometimes with the moderation of conscious weakness which, giving up all hope of complete success, contents itself with credible opinions concerning what seems so far beyond us. We behold the results of this intellectual effort in the cosmic theories of religions, in philosophic speculations, in the widespread inspirations which animate art in different ages, in the convictions which have impressed their character on many forms of national life and morality—and all this lies before us in its many-hued attractiveness as the most worthy of all objects of consideration in which we can become absorbed. But it is hardly possible for any such attentive consideration to attain results different from those which have been afforded by our hasty survey; men have never succeeded in forgetting the old doubts, except during brief and historically favoured periods, animated by some freshly roused enthusiastic practical activity, or some hopeful inspiration of new ideas that seemed full of promise; but this temporary lulling of doubt has never been transformed to a

permanent solution at any time, either by the spirit of the age or by the discoveries of individuals.

And do we yet, notwithstanding all this, desire once more to attempt the impossible? Do we desire, in this concluding Book, to try and lay the foundations of a true philosophy which shall for ever dispel the doubts of preceding centuries?

It would indeed seem so in a certain sense—yet what we desire is not quite this, and we shall not be justly open to the reproach of outrageous boastfulness even if most of the expectations which we have unintentionally aroused should meet with disappointment. For the reader himself is an accomplice in our attempts; as long as the world lasts, the human mind will go on wearying itself out in labouring at this impossible task, and perhaps in doing so find greater enjoyment than in the initiation and prosecution of labours which experience has taught us are capable of completion and lead to indubitable results. And how could the leisure of life be worthily filled up if there were permanently excluded from the occupations of men all reflection which, sometimes more and sometimes less near and perhaps never reaching its goal, yet in unceasing movement, circles about those problems? We are with respect to them much more helpless still, when at isolated moments, stirred and shocked by the events of life, we are forced to think of them, but with thoughts that are hasty, unsteady, and fragmentary. I make no higher claim for the remainder of my book than this (which it will perchance justify)—that it may present to the reader the coherent results of long reflection which have grown dear to me, with the candour that every one ought to use in communicating his best thoughts in any earnest converse, so that moments of leisure may be exalted to moments of mental concentration the effects of which will not pass away. This living personal relation to the mind of the reader, if I should succeed in establishing it, would be worth more to me than the happiness of seeing a place in the development of philosophy accorded to the philosophic view of which I am now about to summarize the outlines. For nowadays all of us certainly

doubt to some extent the convincingness of a faith, accepted not so long ago, according to which the very essence of cosmic history was to be found in the progress of philosophy, and in every change of speculative systems the dawn of a new phase in the life of the Unconditioned Cause of the universe. And even if we had no reason for such doubt, the consideration whether any philosophic theory which one had to propound fitted into the rhythm of an evolutional history already begun —whether it were not late or premature, or altogether out of course and to be banished from the regular succession of systems—these and all other similar questions of etiquette would seem to me unimportant in comparison of the serious doubt whether that which I wished to communicate would be capable of comforting or relieving or refreshing any oppressed soul, by clearing up some obscurity, by solving some doubt, or by revealing some fresh point of view. Not in playing at development, but in such services from one living man to another, is to be found the worth even of those speculations which are concerned about the highest truths.

No other and no higher has been the aim of all the preceding portion of this work; and the sympathy with which it has been received encourages me to press on to the conclusion. My aim would indeed remain unattained if I did not try to weave together the loose threads which I have spun, in a pattern that presents the results which, as it seems to me, may be reached in estimating the subjects of which I have treated. I feel the need of such a synoptical conclusion all the more because I have not felt that I was entitled in the foregoing portion of my work to make explicit use of a philosophic view from which its parts taken separately might seem to be logically developed. I held that it would be more fit, and thought, moreover, that I should best earn the reader's thanks (supposing I could earn them at all) if I entered fully into the doubts which life calls forth with reference to those several questions which have been in turn the object of our consideration. I have everywhere endeavoured to trace the prejudices, partly tacit, partly appearing only in isolated indications,

which (springing from æsthetic interests of the feelings, and other mental needs) are the roots that really give to the most different opinions their hold upon our minds. Hence but little use could be made of philosophic notions and principles, which for the most part are furbished and sharpened only at a later and dialectical stage, for the establishment, defence, or refutation of such prejudices, permitting but little recognition of the real and living worth which these have for the human heart.

My work taking this course I have not been able adequately to present the connection that exists between the views which I hold; I shall now have to show that, looked at in the light of that connection, many apparently conspicuous contradictions do not exist; that many later turns of thought were at the foundation of earlier ones with which they seem to be in conflict, and that taken as a whole, the convictions which I have here sought to communicate are connected with that which I pointed out at the beginning as the aim of my whole work. The unusual nature of my task must be an excuse for the imperfection of this concluding portion—both for the repetitions which I shall not be able altogether to avoid, and for the references which solicit the attention of the reader to earlier sections, in order that the repetitions may not be altogether too numerous.

§ 2. Various philosophic systems, setting out from standpoints not wholly similar, and having the course of their investigation governed by the special interest of some particular mode of putting the question, have believed that they have found more than one exhaustive expression for the ultimate source of those difficulties in which our view of the cosmos is involved. Recalling in a synoptic view the points at which the lines of our previous consideration have come into contact, it would seem as though this supreme problem were to be found in the reciprocal relation of three elemental forms of our knowledge, forms upon which we must base all our judgment of things, without, however, being able to embrace all three in one comprehensive notion, or from any

one to obtain the other two by logical deduction. All our analysis of the cosmic order ends in leading our thought back to a consciousness of necessarily valid *truths*, our perception to the intuition of immediately given *facts* of reality, our conscience to the recognition of an absolute standard of all *determinations of worth*.

But none of those necessary truths reveals to us what is; as universal laws they speak only of that which must be if something else is; they show us what inevitably follows from conditions the occurrence of which they leave wholly doubtful. On the other hand, none of those intuitions which present to us the actual features of reality, exhibit those features to us as necessary; however difficult it may be for our imagination to free itself from the impression of those forms in which experience as a whole has accustomed us to see things be and happen, yet we do not find in them any reason why we should regard them as indispensable; they might either not be, or be different from what they are. Finally, none of our Ideas of what has worth, of what is holy or good or beautiful, can of itself give rise to a definite world of forms as its own proper consequence; even where reality clearly reflects the content of any such Idea, this realization still remains in form and colouring but one out of many possible realizations, conditioned by existing facts, while other and different facts are quite conceivable which would have caused the same content to take an embodiment wholly different in form and colour. Still more obscure than this connection of the necessary laws of thought on the one hand to the worth-determining Ideas, and on the other to the factual condition of reality, is the bond—wholly concealed from us—which connects together those Ideas of what is holy and good and beautiful with the indifferent but immutable content of mathematical and metaphysical truth.

This incoherence not only hinders our knowledge from becoming complete, but is also the source of the doubts which oppress our life. As long as we cannot help thinking that the world as by an unfathomable fate follows the fiat of

necessary laws; that then from some fresh and independent quarter there comes in the reality which is required for the carrying out of these laws; that finally, there are added Ideas of that which ought to be, which have to be realized so far as on the one hand the limitations of those *à priori* laws and on the other hand the inertia and resistance of this underived reality permit—so long as we cannot help thinking all this, our cosmic theory has not the unity necessary for knowledge, and our hopes lack that confirmation which would make them strong and vigorous. That it is not so—that there is but one origin of the world from which flow, as from a common source, its laws, its realities, and its worth—that this origin is not to be sought in that which in itself is unmeaning though necessary, but that that which is most worthy is at once the Alpha and the Omega of all—by this conviction (which has animated all our considerations hitherto) we abide; and we now seek for it both a more exact expression which may take the place of that just used, and such verification as it is capable of. Neither that expression nor this verification will in all respects come up to what in other cases we have—and with justice—required from scientific statements; we must to a large extent content ourselves with making clear what it is that we mean and that we require, without being able to show how that which we require and mean can be; we shall not be able to prove throughout the necessity of that which we are seeking, and to develop its whole content with the certainty of a strict logical deduction from undeniable premises, but must be content to remove the difficulties that hinder a living faith in its existence, and to exhibit it as the ultimate goal to which we have to approximate, although we may not reach it.

These preliminary remarks, which anticipate the special questions in the prosecution of which only their real meaning can be made clear, are offered merely in order that impracticable demands may be met beforehand with a confession of general inability on our part. I will add to them but one other observation, which may serve to indicate our proximate

task or the nearest way to the accomplishment of our task. Convinced of the formal incorrectness of views which teach that for an explanation of the world nothing need be considered except the animating breath of a creative Idea, our considerations have hitherto, and for quite long enough, been occupied in taking the part of the Finite against the Infinite, of the blind necessity of the mechanism of Nature against the freedom of Spirit-life, of Plurality against Unity; to many it will seem as though they had, in all essential points, taken the side of the small against the great, which they have provisionally neglected. Now that we take the opposite standpoint (being convinced of the perfect legitimacy of claims which, in the form in which they are generally put, we felt bound to reject), we cannot consider that we should gain anything by setting the view which this standpoint opens to us in opposition to the one we formerly took, as being *also* existent and having *also* a foundation in the condition of things. We should only gain if the earlier mode of thought, traced back to its real principles, itself constrained us to enter upon the path which leads inevitably to this other view of the world. It may make one happy to exhibit the world, in fresh enthusiasm of feeling, as presenting an unspeakably lofty and beautiful content, which rather possesses our mind than is possessed by it; but the nearer we come to particulars the more are they felt as hindrances which compel the lowering of this lofty flight; we should be really raised higher if from a right handling of these particulars we could derive an upward impulse, which would give us hope that at the end of our way (now secure because all hindrances have been overcome) we should reach that which is highest.

The way that we would indicate is familiar to the natural course of men's thought. Almost every attempt to justify or to communicate the fundamental truths of religious conviction is introduced by the assertions that if there is a conditioned then there must be also an unconditioned, if something that passes away, then something that is eternal, if plurality and something that may change, then also something that is neces-

sary, some being that is one and immutable. It would not be easy to show a valid connection between antecedent and consequent in any of these concise maxims; as commonly used, they juxtapose the beginning and the end of a long train of thought, suppressing the intermediate links by which they must be connected. They meet with approval and seem evident to the hearer, because he too has been long accustomed, by a combination of ideas the justification for which he has perhaps never been clearly conscious of, to strive to pass from the thought of the Finite to that of the Infinite, from that of the Many to that of the One; whilst whatever essential ground there may be in the content of the one idea on account of which its reality guarantees also the reality of the content of the contrasted idea, this recovery of the links which justify the maxims and connect their members, may be regarded as the task which first demands our attention.

§ 3. Things—each of which is an harmonious group of properties—seem, when we first look at the world, to be, in all essential respects, immovable wholes, untouched at bottom by the alterations which some of their less important characteristics undergo. But when investigation begins, it soon appears that the disturbance which seemed only lightly to graze the surface of things, really penetrates far deeper into them, and finally affects everything in them which we had thought to be permanent and unchanging. Each of their properties appears to be ultimately dependent upon conditions, and to change when these conditions change; and all these conditions consist of variable reciprocal relations subsisting between many things—that is, of activities which they exercise and are affected by. Thus in the most favourable case we learn the relation and behaviour of things under definite circumstances, but not what they must be in order that they may be able to exhibit such relation and behaviour. But it is not only the content of what is that remains enigmatical to us, the significance of its being is so too—as far as we are concerned it resolves itself into mere action. For even the most stable properties of things, properties which in their permanence our

imagination may use as the very image of a changeless being, appear upon close investigation to be undergoing continuous growth and decay; their existence at every moment is the transitory result of reciprocal action between many elements, unceasing renewal of this action being required in order that their apparently steady continuance may extend for even but a small space. Where then can we find, and wherein consists, that uniform undisturbed permanent being which we have been used to regard as comparable to the unchanging channel in which the current of events flows on? Even now we do not find that we can do without it; for the content of one moment conditions that of the next, so that there must be some stable reality, embracing equally all phases of Becoming, and assuring to each its power to condition the next; what then is, and in what consists, this Being?

Let us, in order to be brief, follow the path which has been taken by an ingenious modern system. Our first question concerning the τὸ τί of things has regard, not to that nature by which each is differenced from others, but to that in virtue of which all are similar and all are things. But this name, *thing*, indicates—as far as known to us—nothing other than the performances which we expect from what we call things as evidence of their reality; they are things in as far as *they* are at least participant in immutable independent being, and present the fixed points to which is attached, in whatever way, the varying course of events. Now, having once become doubtful of the correctness of the ideas which we formerly applied with unquestioning confidence, we must first consider and make clear to ourselves what that being is which we require in things in order that our theory of the world may find in them a firm foundation; in the second place, we must ask how and what things may and must be, in order that they may participate in this being, of which we have found the meaning.

The content of the simplest notions does not admit of being built up out of constituent parts, but only of being detached from the examples in which it occurs. Therefore

we are justified in starting from the fact that existence is first present and intelligible to every one in sense-perception; that *is*, which is seen or heard or in any way perceived, and at this first stage nothing indicates the existence of things except their being perceived by us. But even at this first stage we recognise too that this illustration of existence does not suffice to express that which we mean by it. For, as we think, the existence of things remains, even when our attention is turned from them; they were when we did not perceive them, and for that reason, when our senses are again applied to them, they may afresh become objects of sense-perception. Consequently their existence, which at first consisted for us only in their being perceived, must belong to them without reference to our sense-perception; but in what, then, does it consist? This question, too, is readily answered by ordinary thought, according to which, whilst things are not perceived by us, and perhaps when they have never been perceived by any one, they still continue to stand in relations of various kinds to one another; it was these relations that formerly gave to them a firm hold upon reality; and these constituted their existence up to the moment of their being again perceived by us. But this being perceived is itself nothing but a new relation which is added to, or dissolves, the old ones; while of greater importance for us, because it is only through it that we come to have cognisance of existence, it is to the existent thing itself not more indispensable for its existence than those relations which subsist or subsisted between it and other things.

Ordinary thought generally keeps to this standpoint; a state of relatedness is regarded by it as being the existence which it has in view; it is only philosophic reflection that tries to reach beyond this and in a reality devoid of relations, in a wholly self-sufficing self-dependence, to find the true and pure existence which belongs to things in themselves, and first makes them capable of serving as points from which relations may start. And in fact to stand in no relation to anything else—neither to be known nor to know—not to be brought

into connection with any other thing, either as having position in space or order in time—neither to be affected by anything nor to have any perceptible effect—is exactly what in ordinary thought is regarded as the fate of the non-existent, but not as the nature of the existent; and it asks, and with reason, In what respects then is this pure existence distinguished from non-existence, if not in the fact that we *choose* to understand by it the opposite of non-existence? Now this question would undoubtedly be foolish if it were the expression of a curiosity to know the process or the inner structure by which such existence is endowed with the reality that differences it from non-existence; but the impossibility which we here find of separating that which we mean from that which we do not mean, even by determinations of thought, points to some error of commission which we will now endeavour to discover.

From the total content of any idea by which we think some fact of reality, analytic abstraction easily separates individual ideas which are admissible and just as long as they, conjoined with others in the further course of thought, lead to conclusions that are again coincident with real facts, whilst they have not the kind of validity which would enable them, of themselves and out of such combination, to denote any reality whatever. From the idea of the movement of a body, an idea which in its completeness denotes a fact of observation, we drop all reference to the body, and lay stress upon the idea of movement alone; we analyse further this idea itself and thus get the notions of velocity and direction—pure abstractions, which are just and useful because their content is capable of an elaboration in thought the results of which when again applied to the complete idea of the movement of a body, gives us enlarged insight into the nature of this movement; but neither velocity in itself without direction, nor direction without some movement in some direction, can denote anything which could of itself actually exist. That the notion of pure existence is to be reckoned among these notions, which are in themselves valid but can have no

real independent existence, is most easily shown by the other names which are given to it—the names of absolute Positing or Affirmation.

Affirmation would be a most inadequate mark of that which we mean by existence; it is only our habit of virtually thinking of the real and not of the unreal as that which our affirmation concerns that can mislead us into thinking that we exhaust the notion of existence by the notion of affirmation. It is plain that existence is denoted not by affirmation simply, but by affirmation of existence; and both the meaning of this and its difference from non-existence remain wholly untouched by appeal to an affirmation which may apply to its opposite just as much as to itself. The notion of Positing gives us nothing better. It is readily conceded that something or other must be thought which the positing posits, or the affirmation affirms; but even this addition does not give to either of the two notions such completeness as would make it possible to accept them in the sense here assigned. The affirmation of a single notion has no meaning which we can specify; we can affirm nothing but a proposition in which the content of one notion is brought into relation with that of another; and just as unmeaning is it to speak of any positing in general without at the same time thinking of and naming those relations, the being brought into which constitutes the very positing of that which is posited. Nothing can be simply posited without being posited in some way or other, in some specified circumstances or connection—and the assertions that characterize the true existence of things as *unconditioned irrevocable absolute positing* cannot compensate for the failure to state in what this positing consists and what its effect is, by predicates that emphasize its importance. Undoubtedly the general notion of Affirmation may be separated from affirmations of various propositions, and the notion of Positing from the manifold positings by which we bring various things into various relations, and both will furnish serviceable abstractions; but neither can we in thought make an affirmation thus without content, or a mere bare positing, nor can

there be, beyond our thought, any reality corresponding to either.

The failure of a definition does not do away with the validity of the notion intended to be defined. Hence we shall have no difficulty in admitting the fruitlessness of these attempts to cover the true meaning of existence by the notions of empty Affirmation or Positing, while yet there may be very plausible considerations leading men to think themselves justified in seeking it nevertheless in an absence of relatedness which we thought to be equivalent to non-existence. For no view can bind the reality of things to a definite number of definite and immutable relations, but things are *things* just because their existence lasts on undisturbed throughout the ceaseless change of all their relations. If we now take away, all at once, all those relations that we are undoubtedly justified in taking away one after the other and separately—if we deny all relations—this denial will not concern that which was independent of what we denied; there will remain, it is supposed, as the object of a distinct and assured opinion, Pure Existence—which now without relations is the same reality that it formerly was with relations; less easily described indeed in its simplicity than it would be in any of its relations, which would give us an opportunity of telling something about it, but not the less something certain and positive in itself, because of our inability to characterize its self-dependence in any other way than by denial of that which it excludes. Thus, it is thought, do we reach a confirmation of that which we vainly attempted to call in question —things must *be, before* they can stand in the relations in which indeed alone their reality can become perceptible to us; and it is thought that this hidden existence is permanently distinguished from non existence by the capacity of that which exists to enter at any moment into that network of relationships in which its reality becomes apparent.

What I object to in this train of thought is this insignificant *before*. When we recall those individual ideas by the joining of which we make clear the simple meaning of existence, it is

very natural that this idea of reality which cannot be further analysed, should, just because it is contained in the notion of *every* existent thing, take the favoured position of something precedent to the various and changeable determinations by which one existent thing is distinguished from another—these determinations being only subsequently added to the pre-existent reality. If this were expressed thus:—In order to think the existence of things one must first grasp that reality or affirmation by which all existence is distinguished from non-existence, and then understand as that to which this affirmation relates, all those determinations and relations by which one definite existence is differenced from another—we should have no objection to make to this logical arrangement of the notions referred to. But this succession of ideas, which always arises in a similar way when we compare numerous examples of some universal, does not always correspond to a uniform actual process in the compared objects themselves; and even in the case which we have taken it may be shown that the priority of unrelated to related existence is merely this logical priority, not the metaphysical priority which would be expressed in the assertion that there is real unrelated existence, taking *real* in the same meaning in which we apply it to related existence.

We only speak of things and of their existence because these ideas are indispensable for the intelligibility of the changeable phænomenal world. Now it may seem quite allowable to assume that a thing may emerge at any moment out of the complete unrelatedness in which it reposes, secure of itself but not as yet contributing anything to the play of events in the world, and may enter into those relations to others in which it is capable of making an efficient contribution to the sum of what is going on in the universe. But nothing can enter into relations at all without entering into some definite relation to the exclusion of all others. Yet wherein can lie the grounds of decision for the choice of this relation, if not in other relations, which, however unobserved, have long subsisted between that solitary element

and the rest of the world, with which it appears—but plainly only appears—to enter now for the first time into conjunction? If, allowing ourselves to use a spatial image, we represent the whole of reality as a sphere of infinite diameter, but that solitary element, which as yet has no relation to it, as actually having a non-spatial existence from which it will pass into spatial reality, its entrance into space must take place at a definite point to the exclusion of all others; it is impossible to find any reason for the choice of this place except in the direction of some movement which the solitary element already had towards it, even when it seemed to us in its spacelessness to be devoid of all definite relation to spatial reality. Therefore if we leave undecided whether there is admissible at all the notion of unrelated existence separated from related existence (in the idea of which indeed the idea of unrelated existence is contained), yet we must maintain that anything which actually *was* so unrelated could never enter into those relations through which it would assert itself in reality as a real thing among other real things. And just as little is it possible that any existing thing which had once been in relation to others, should get rid of all relation to the rest of the world; it could only get to a greater distance from it, this, however, being just as much a relation as its former proximity. Hence there was an error in concluding that because it may be possible to deny an individual relation therefore some real existence would remain when all relations have been denied. In the same way consciousness remains when any individual idea is removed, but it disappears if all are removed simultaneously.

Then—it will be finally objected—there is nothing stable at all, since the existence of everything presupposes the existence of some other to which it must be related, and thus neither can be without the other which is its foundation. Without doubt this is the most erroneous of all objections; it wholly mistakes the business of philosophy. For that business is not to state a mode of procedure according to which the world might be created if unfortunately it did not yet exist, but

only (and especially here) to understand the connection of the world which already exists. We do not inquire what difficulties a world-creating power might have in producing this reciprocal tension of all those constituent parts of the whole arch which mutually presuppose one another; perhaps it had no difficulty at all, for why should this power have been so one-armed that it could only fix one element at a time? It is just this continuous arch of mutually related things which is the primal reality that constitutes the object of all our investigations—the object which is given and which alone we can recognise; to seek to discover the laws according to which the course of changes takes place in it now that it exists seems to us a possible aim of these investigations; but to ask by what device it has been made, or how it has been brought about that there is any coherent world whatever, instead of none at all, we hold to be a wandering flight of fancy that shoots beyond the mark. Hence, we may observe incidentally, it would be an advantage to banish from the consideration of existence those expressions *Affirmation* and *Positing* which have already troubled us. Being, in form, designations of actions, their use keeps up the prejudiced belief that some process may be stated by which the existence of that which exists is produced—as if in existence itself there took place that succession which obtains among our ideas when we try to comprehend it.

And so perhaps we may most quickly come to terms with the mode of thought opposed to us, in the following way. When it maintains that each Real being in its own pure existence floats in a condition of complete unrelatedness, but not only *can* enter into relations with others, but does so in reality with infinite frequency, we only ask to be allowed to regard this relatedness—which is admitted in fact, and therefore recognised as possible—as the only kind of real existence; but that pure existence to which reference has been made, as something that does not occur in any place or at any time. If according to that view existing things need no external relation in order to exist, we would add that at any rate

existing things now *have* enough and to spare of such relations, and have them everywhere and from all eternity, and that in point of fact reality contains nothing that is or could be isolated in its own pure existence, and out of all relation. If then there *is* nothing that is unrelated, we are entitled to say that it belongs to the notion and nature of *existence* to be related. For he who holds that existing things devoid of relation are conceivable but admits that none such do actually exist, plainly does not speak metaphysically of existent things, but logically of what is possible but not actual, and hence certainly not existent.

§ 4. We have already had repeated occasion to distinguish between the relations which seemed to belong to things themselves and others into which they are merely brought arbitrarily by our thought. It is only in the first class that we shall now seek to find those relations, to be in which constitutes the existence of things; and yet those of the other class are not less important, and it is only apparently that they are foreign to the nature of things. For to establish by arbitrary conjunction relations which have no foundation in the content of the things conjoined would be not thought but mental aberration; even a relation of comparison must, in as far as it is correct, have its root in the actual condition of that which is compared. If we compare things as contrary or greater or smaller, it is not our comparison that makes them contrary, greater or smaller, but the things compared actually had these relations to one another before we came to consider them, and the relations are found, not invented, by our thought. Yet their remains a difference. Sometimes the contrasts are brought together and exhibit their opposition only in our thought; sometimes they encounter in reality and cancel one another; sometimes in our thoughts the greater is opposed to the less without affecting it, sometimes in conflict it makes its superior power felt. It will easily appear from a generalization of these examples that the former relations afford definite grounds for the form and content of *future* action, and that the latter are the effective

conditions of *actual* action, in which the related elements do and suffer as those conditions indicate. It is to this last relation that we now wish to devote some attention.

That all which takes place in the world takes place in obedience to laws will be readily admitted by every one; but there is less agreement as to *what* that is which the most general laws of existence and action impose upon the demeanour of all things. Yet it is not this variety of views as to the last point which stirs us up at present, but just that assumption in which they all agree. But whilst we raise a special question as to the conceivability of this assumption—that there are universal laws—we must be careful to guard the meaning of the question itself against misapprehensions. Of course we cannot demand to know how it is that a *primitive* truth, which is not derived from any other, can be true, nor how it comes to pass that an *universal* truth should be valid in all the cases of its application which we think of; the only thing that we wish to make clear to ourselves is, how a law can be not only a valid truth in the realm of thoughts, but also a determining power in the world of things. And this question we do not ask in the hope of obtaining a graphic picture of the arrangements by which the subordination of things to the law is brought about; all we want is an explanation of the several thoughts which always accompany the notion which we have when we think of any general law as a valid truth; for when we desire to transfer the law to reality as a governing power, we must, as a condition of the possibility of that transference of the law, carry with us in our thinking the content of those thoughts, into the sphere of reality.

Now every law regarded as a valid truth attaches some definite consequence to a relation that either always exists or can be established between some two factors. But in order that it may be general and not the expression of an individual case, it not only assumes that that consequence and the conditioning relation to which it is attached belong each to a series of which the members are connected in some definite

way; but it also has to make the same assumption as regards the factors between which there is this connection of condition and consequent. And indeed it needs but little consideration to show that not only must each one of these factors be of a kind belonging to some genus, but that also both the genera themselves (to which the two factors severally belong) though not indeed necessarily kinds belonging to a higher common universal, must be at any rate members of some relation in which they occupy definite positions. Under these conditions the law expresses the general mode of dependence by which in each individual case the kind and magnitude of its consequent is determined, in accordance with the given kind and magnitude of an assumed connection which may be variable, and with the special nature of the factors between which this connection has place. The general axioms of mechanics would furnish a multitude of illustrative examples for the further consideration of these briefly indicated relations; here I would only once more emphasize the point (which is, in this place, of importance for us) that on the one hand the relations between things, and on the other hand the effects resulting from them, must be comparable though different cases of general events, and not only so but also the natures of the things from the relation between which an effect is to arise, cannot differ to an immeasurable and incomparable degree, as long as the part which those natures are to contribute to the formation of the result in any case is to be determinable by some general law. And indeed it is not sufficient to allow to the things such homogeneity as causes them to be co-ordinated under the general notion of *thing;* it is further necessary that the qualities by which one of them is distinguished from the other should be comparable values of general qualities.

In developing this demand, more laboriously than perhaps might seem necessary, what we have been insisting upon is not some assumption that is not naturally made everywhere in attempts at philosophic explanations of the world, but certainly one the significance of which men, when they

make it, do not adequately perceive. For we only give a different expression to the meaning of this assumption when we maintain that it makes impossible any thought of the independence of things which allows an individual thing to be what it is without reference to others; that on the contrary it constrains us to regard the specific nature of everything as being a definite member of an all-embracing series in the existible world—a series of which the equally special natures of other things constitute the remaining members. That this assumption is everywhere tacitly made we learn from the procedure of those who formally deny it. Wholly undetermined—they say—are the qualities of Real beings; each may be what it will, if only what it is is something simple and positive, and if in order to be what it is, it needs no relation to anything else. But as soon as the explanation of phænomena makes it necessary to give an account of the consequences which arise from the relation that (notwithstanding their independence) comes to exist between two Real beings, this assumption has to be supplemented by a correction which makes it useless in itself. For the simple natures which make it impossible to divine how the conjunction of the beings to which they belong could produce any result, it is thought that there may be substituted combinations of several qualities as equivalent expressions of their content, and this without detriment to the supposed simplicity; and because all opposites tend to cancel one another, these substitutory expressions, by analysing the simple qualities into similar or opposite or otherwise contrasted constituents, give us some insight into the way in which the reciprocally acting natures of things work into each other so as to produce a new condition of reality. And thus contingent aspects skilfully reach—by a roundabout path, and in a form which has dangers of its own—the same assertion which we held from the beginning, namely that the natures of things do not differ in an incomparable degree, but that they are members of a series (or a system of series) susceptible of comparison. Each indeed has a value of its own, by which independent of others

it is what it is, but all these values are in a condition of relatedness through which it first becomes possible that the conjunction of several of them should furnish adequate ground for a definite result. Realism has an intelligible but unfair interest in preferring this roundabout path; it desires that the independence of each individual Real being should not be endangered by the thought that the commensurability of its nature with the natures of the others belongs to the very notion of it; only as a completed fact, and a fact which might have been otherwise, does it admit, as something supplementary, this comparability of things. But here again it does not escape confusion between an effort of logical thought and metaphysical knowledge. For to assume that in itself the notion of an existent thing does not require that it should be comparable with others, and then to admit that in point of fact what exists is comparable, can only signify that just that being which is insusceptible of comparison belongs not to what exists but to those possibilities of thought with which abstraction plays when it takes to pieces the notion of reality and for its own ends substantiates parts which in reality only occur in combination.

Now whilst in practice explanations of the world admit the comparability of things, they misunderstand (as we remarked above) the significance of this admission, for they regard the content of it as far more natural and self-evident than it is. According to them just because nothing keeps the differences between the natures of things within certain definite limits, it is equally possible that they should all be comparable and that each should be immeasurably different from the others. Now if in reality only the first and not the second alternative is met with, there need not on that account be any more intimate relationship, any bond between individual things that could in any way detract from their independence; each might be wholly independent of others, the reality of *its* content (as in every instance of a general notion) might, in spite of its similarity to some other, yet be wholly independent of that other. Hence if things should

happen to be partly similar and partly contrary, there would be no reason for regarding such a state of things with suspicion, and it would be self-evident that the reciprocal action of things would have the same result which the opposition or the similarity of natures brought together in some definite relation must always have.

But is it a fact that all this is self-evident? Or if it seems so, does not the self-evidence result from long custom, which dulls our apprehension of what is wonderful in familiar things? The combined impression of all experience early taught us to know the world as a coherent whole, within which each several content, every state, every quality, every nature of anything comes into conjunction with other contents, states, qualities, and natures in such a way that from the combination there may arise the complete cause of a new result. At present, *after* having this experience, it does indeed seem to us self-evident that each individual, however isolated and independent it may at first seem, is yet included in the web of this universal world, embracing truth and correspondence of all existence; but considered in itself this fact is calculated to excite inexhaustible wonder. And this wonder is by no means allayed by the cool reflections which we have just cited; the equal or unequal probability of various cases can be discussed in such a manner only when those cases themselves are regarded as being already constituents of a world with reference to which there has already been established from the beginning the universal validity of certain laws—laws that enable us to distinguish the possible from the impossible, and to estimate the different or equal probability of different cases. Only when we have already assumed that there is one truth which is valid amid the multiplicity of reality, and have once for all resolved to regard the signification of this validity as clear, and not to ask further in what it is precisely that this dominion of truth and subordination of existence to it consist—only then is it that everything in reality which is in accordance herewith seems to us to be self-evident, and to have its validity

guaranteed by that universal truth which is past comprehension. But what exactly is it that we do in making this assumption? How do we reach the assurance that truth, if only it be true, will achieve dominion over all things, whatever the nature of these may consist in?

There is a perverse way of representing these things which I have already found frequent occasion to criticise. We are accustomed to speak of the laws of Nature and of the cosmic order as though each were something independent, and were between or outside of or above things, and ready to enforce their obedience to its commands. A glance at social relations showed us a case of this error. Where would be the law of a state if all its citizens slept, or if the plague had swept them all off, or if all willed something different from the law? In the last case it would at any rate have an efficient existence as causing reproaches of conscience in the minds of the disobedient; in the first two it would exist only in the form of a temporary continuance of that order of material conditions that it had created; in general it has controlling efficacy only as it lives in the citizens, as conscious idea, as disposition, as personal conviction, and as conforming will; it never exists between or outside of or above them. And with the laws of things the case is no otherwise. It is not that they constrain things to act as they do, but things themselves act, and act in such a fashion that in reflecting upon their action we are able to find a law guided by which, in predicting a consequence from given conditions, we reach a conclusion that coincides with reality. But after we have developed this thought of a law which at bottom is nothing more than the unvarying nature of real things and of their action, this creation of our thought grows under our hands and easily comes to wear the appearance of a truth valid in itself and preceding reality; and it then seems to us self-evident that even existent things should obey that which is in itself true and necessary. The self-evidence we may now admit; but not for the reason given, which represents it erroneously. It exists for us in so far as we regard it as belonging to the innermost being of

things—the being in virtue of which they are things—that their natures are not incommensurably different, but are comparable; that none of them is simply unique of its kind; that even a thing which had no equals would be distinguished only by the special position which it occupied in the cosmic system, or by some peculiar combination of qualities which are also found out of that combination as constituents of "contingent aspects"—thus having definite relations among themselves and to other things. It is only if these presuppositions be made that it is, in our view, conceivable that One Truth should control the Manifold of Reality, and that changing relations should produce a system of causes from which springs an ordered sequence of results.

We do not ascribe to this assertion—that there is a correspondence between all things which is a necessity of thought—greater significance than it can possess; it contains no reason for understanding the connection of things as being yet closer—of intensifying it, for instance, to a common origin from one source or to continuous inherence in one substance. Yet it abolishes the supposed self-dependence, in unconstrained freedom and isolation, of each thing, and draws attention to a connectedness between the contents of things which is everywhere assumed in attempts to explain the world without its being made quite clear how much the assumption admits.

§ 5. We have been hitherto speaking only of the comparability of things or of the relations between them which contain the ground of some future event; we have not as yet spoken of those connections the introduction of which constrains that nature in things to which we have referred actually to produce these possible results by their reciprocal action. In turning to this subject we shall for the present disregard some questions which at this point are beginning to force themselves upon us, but would divide our attention detrimentally. It may remain undecided under what form of intuition we are accustomed to imagine, or have to imagine, those connections between things which constrain them to reciprocal actions; and we may likewise leave

undisturbed the question whether we should regard them generally as sometimes being present and sometimes absent; or on the other hand as always subsisting, but as being sometimes forced upon our observation and sometimes withdrawn from it by an infinitely varied gradation of their intimacy or closeness, and the correspondingly varying magnitude of the effects that depend upon them. We will set out from the fact that they have hitherto appeared to us as relations between things; connecting with this fact the question how they can exist thus *between* things; and how—supposing that they do thus exist—they could act upon things as conditioning forces.

When in thought we compare two things of which one is greater and the other less, and recognise a difference between them, the dividing and connecting *between* that arises here consists in the consciousness of a change of our inward condition which we experienced when our ideation of the greater passed into ideation of the less. This third idea, which is a state of our mind in the same sense as the two previous ones which are compared in it, partakes of the same kind of reality as they do. Now what is it that can give to the *between* of things themselves—to the connection which joins them and not their ideational images—a reality similar to that possessed by the things? Besides what exists there is nothing except what is non-existent; that which neither is the things themselves, nor is in them, must sink unsupported into a complete vacuum in which it neither can simply exist, nor exist with various definite values; and can least of all subsist as a unifying and connecting power superior to things. It is easy to imagine a connecting background of all things, on which, as a firm support, connections may run from one thing to another; but as long as things themselves do not constitute this background, on further consideration the question will always recur, How can the connection, being a state of this bond between things, have any power over things which are themselves other than the bond? Between this bond and things there must be another Between, which

the connections *must* include—and yet *could* not include, either if the Between were empty nothing or if it were filled up by some reality foreign to the things themselves. This ever-recurring difficulty will later force us to recognise that the thought of an objective connection between things is altogether impossible, and that what we use to call by this name is in all cases some state or action *in* things themselves. But at the present stage, when further elucidation of this assertion would lead us astray from the proximate topic of discussion, we will content ourselves with the recognition that at all events connections which exist between beings would be without significance as long as they existed only *between* them, and had not produced any internal state in the things themselves. As long as things feel and know nothing of the connections that hold between them, these cannot contain the cause of a change in things, and just as little the cause of their reciprocal action upon each other. Any being can be caused to change its state only by something that is actually in itself, by some passion of its own; only in as far as two beings cause this passion in one another, can they be reciprocally acting causes. But since they cannot produce this passion in each other by means of connections between them, the change which we assume in one must *be* a direct passion in the other, and the question arises, Upon what assumption is the fulfilment of this requirement thinkable?

We may escape the tediousness of the explanation here required by a reference. We have repeatedly had occasion (cf. i., p. 358) to consider the possibility of reciprocal action between things and the suppositions that have been made in the hope of explaining it. We convinced ourselves that all ideas of some influence passing from one thing to another, ended in impossibilities and contradictions. It could hardly be made clear what exactly that should be that did thus (as was supposed) pass between them—if it was some third real element, that detached itself from a first in order to pass over to a second, its movement between the two might indeed be capable of presentation in idea, but the problem of reciprocal action

would remain unsolved; and indeed doubled—for we should need to ask how this third element could be sent out from the first, and how its reaching the second could be the cause of any passion in that second; if the third something were a force, an effect, or a state, neither of our two obscure points would be made clearer, but even what before was plain would become obscure—namely, how all these which can exist only as attributes of a being could detach themselves from any one element, float for an instant in the vacuum between the two, and then taking a definite direction, arrive at the second as the goal of their movement; this second being at the same time the point of their return to the sphere of existence. All these difficulties have frequently led to the attempt to deny altogether this inexplicable reciprocal action, and to put in its place a predetermined harmony of cosmic order, according to which the states of the different things accompany and correspond to one another, without having to be produced by reciprocal action. But it was quite idle to imagine an order separated from the things in the changes of which alone it could have any reality. Only if the course of all, even of the most trivial, events were fixed by immutable predestination, could the assumption of a Pre-established Harmony—not indeed *explain* anything, but — tolerably well *describe* the facts. But it is impossible that there could be such a harmony which as a general law should predetermine the necessary consequences of contingent events; for if a change of some constituent of the universe (and it is of such that all these consequences must finally consist) has to follow and correspond to any event that may or may not happen whenever it does happen, then that constituent must be able to distinguish the occurrence from the non-occurrence of the event by some passion which the event produces in it, and the action and reaction which it was desired to banish would thus be necessary for the comprehension of that harmony which is intended to replace it. And the most desperate efforts to find in the continual mediating activity of God the bond to which it is due that the states of one thing become the efficient

causes of change in another, cannot obviate our speculative scruples, as long as they separate God and things from one another in the same way as individual things used to be separated from one another. For these views, too, only double the unsolved problem—they suppose an action of things upon God, and a reaction of God upon them, and explain neither the action nor the reaction. It has seemed to us indispensable to remove this separation, and in a substantial community of being between all things to find the possibility of the states of one becoming efficient causes of the changes of another. It is only if individual things do not float independent or left to themselves in a vacuum across which no connection can reach—only if all of them, being finite individuals, are at the same time only parts of one single Infinite Substance, which embraces them all and cherishes them all within itself, that their reciprocal action, or what we call such, is possible. For only then can the change which any one of them experiences *be* at the same time a state of the Infinite, so that it is not necessary for its influence to extend across a gulf which can never be filled up, in order to produce this state; only then can the result which this state produces in the Infinite, in accordance with the truth of its own nature, appear at the same time as a change of other individual things without there being any need of some fresh process by which it may be produced in them.

Now how this itself is thinkable—under what form that one all-embracing Being may be represented in idea, and how in its unity the plurality of finite things may be contained—is a question which we reserve for later consideration, being quite conscious that what we have hitherto done has been to make a demand which was unavoidable, without having as yet shown that it was capable of being satisfied. But there is another question which we do not reserve for later consideration, and the repetition of which would only convince us of the fruitlessness of all previous considerations—the question how within any one being that action could take place which we must presuppose in order to understand how

any fresh state of the being in question could result from its preceding states? I should be glad to hope that I had succeeded in making clear the self-contradictory circle which this curiosity involves. For whatever process it may devise to fill up the apparent chasm between reason and consequent this process would always consist of a longer or shorter chain of events of which every two consecutive ones would be connected by the same uncomprehended action, the very possibility of which it had been attempted to explain by means of their collocation. It is not at this impossible explanation that we have aimed; how a cause begins to produce its *immediate* effect, how a condition is the foundation of its *direct* result it will never be possible to say; yet that cause and condition *do* thus act must be reckoned among those simple facts that compose the reality which is the object of all our investigations. But there was an intolerable contradiction in the assumption that though two beings may be wholly independent the one of the other, yet that which takes place in one can be a cause of change in the other; things that do not affect each other at all, cannot at the same time affect each other in such a manner that the one is guided by the other. It was necessary to remove this contradiction, in order to make room for recognising the fact of that ever-incomprehensible connection of states; but we have never held that by removing a hindrance that stood in the way of acknowledging its occurrence, one could make more intelligible the actual way in which this connection is brought to pass (if I may for once make use of this self-contradictory expression).

§ 6. The detail with which on a previous occasion (cf. i., p. 365) the last part of this train of thought was elucidated, may justify the comparative brevity of the present repetition, which is only intended to call to mind the results which we now wish to combine with the preceding results of our reflection.

I. To our minds all intelligibility of the cosmic course depends upon universal relations, which connect all things

together. Of course things must *be* in order that they may be connected with one another, but the being which we think as yet unrelated and which we represent to ourselves in idea as the ground of the possibility of related being, is not a reality that occurs independently, beginning from which things enter later into reciprocal relations, and to which (getting rid of all relations) they can return again; the truth rather is that it is latent in the forms of related being, and inseparable from these, and is in truth only the affirmation, positing, or reality of these relations themselves.

II. Also that τὸ τί of things—namely their nature—by which each individual one is distinguished from every other, is at least so far similar or comparable for all things, that there can be one universal truth, valid throughout the world, according to which, from certain definite relations of things, there flow definite results, and from other relations other results. The possibility that any combinations whatever of things should become adequate grounds of a consequence definite in itself or capable of being specified, forbids the assumption that anything whatever can have a content absolutely unconditioned or unique; at most it could only be the sole actual example of one content which, whether simple or compound, may be thought as an universal occurring in various examples, and being combined in thought with other contents, according to the universal laws of truth, may be regarded as the adequate ground of any third content.

III. Not only are the natures of things actually so adapted that they can supplement one another so as to become the causes of results, but also this fact of their correspondence must be understood by reference to a continuous and substantial unity of all. That correspondence is not a lucky hit which alone has been realized among many equally possible but actually unrealized cases of non-adaptation of beings independent of one another and perfectly self-dependent as regards their content—but it depends upon this, that all which exists is but One Infinite Being which stamps upon

individual things in fitting forms its own ever-similar and self-identical nature. Only on the assumption of this substantial unity is that intelligible which we call the reciprocal action of different things, and which in truth is always the reciprocal action of the different states of one and the same thing.

## CHAPTER II.

### THE SPATIAL AND SUPERSENSUOUS WORLDS.

The Doctrine of the Ideality of Space—The Correspondence of the Real Intellectual and of the Apparent Spatial Places of Things—Removal of even the Intellectual Relations between Things; Sole Reality of Reciprocal Action—Notion of Action—Summary.

§ 1. IN considering the connection between bodily and mental life we have had frequent occasion to ask what is to be regarded as the real τὸ τί and nature of things. The numerous transformations which in the course of our reflection are undergone by the answers which we at first put forth with undoubting confidence, and the gradual removal of the prejudices by which at the beginning we commonly allow ourselves to be ruled, will have been sufficiently traced in our previous considerations to allow of our now connecting further reflections with the results which we had provisionally reached, without the need of repetition. The things of the sensuous world will first occupy our attention.

We have long ago left behind us the standpoints from which it appeared at first that things consisted directly in a combined multiplicity of sensuous qualities, and then that the matter which was at the foundation of them all constantly occupied space; even the atoms into which the need of explaining Nature necessarily drove us to resolve that which is efficient in the world of sense, we could not regard as homogeneous but minute particles of that ever-extended universal matter; spatial extension, form, and magnitude could not belong to their being, much less constitute the whole and exhaustive content of that being. It seemed to us that these spatial properties belonged only to what was composite, not to the simple elements from the repetition of which the com-

posite arises; that unextended beings sending forth their effects from different points of space, and by their forces reciprocally prescribing positions to one another and maintaining these positions, produce images of extended substances which we intuit, and which with more or less intensity of coherence and impenetrability seem always under different conditions to occupy different parts of space. The nature of those simple beings themselves we left undecided; we only characterized them—in expressions chiefly of negative signification—as supersensuous, intellectual, and intensive, in contrast to that which we, in accordance with common opinion, had up to this point regarded as the τὸ τί of things; we could only point to the nature of souls as furnishing an illustration of what was meant by these words (cf. i., pp. 326 *seq.*). But throughout all these considerations we have in one point held fast to common opinion—we have retained the idea of an infinite space stretching beyond us and between things, in order to serve as a place for things; as the theatre of their actions and reactions and an ever-present background, making possible the existence of connections between them; and finally (by the alternations of remoteness and nearness which it allows) conditioning the exercise of these effects sometimes as hindrance and sometimes as furtherance. We have now come to the point at which we must reject this assumption—the temporary acceptance of which was necessary for the simplification of the problems with which we have had to deal, and was possible because the changed view which we must now substitute for it will allow without detriment of our using in all the details of our investigation of Nature, the modes of expression founded upon it.

Although obscured by the last stage of modern philosophy (which regards its retrogression in this point as a particularly successful step in advance), Kant's doctrine of the Ideality of Space is still so fresh in the remembrance of modern culture, that I shall most simply express what is essential in my own view by briefly agreeing with it. I hold that space and all spatial connections are merely forms of our subjective intui-

tion, not applicable to those things and those relations of things which are the efficient causes of all particular sensuous intuitions — this kernel of Kant's doctrine I accept unreservedly. I should be happy if I could accept with equal unreserve the arguments by which he supports it, or the way in which he uses it for the construction of his philosophic theory. But I can do neither; and being unable to refer to any accepted doctrine, I am constrained to attempt a very brief outline of my own view, which could only be demonstrated by a special scientific investigation, since it would necessarily involve laborious examination of countless objections.

Our ideas are not what they signify—the idea of sweet is not sweet, the idea of half is not half. And our intuitions of extended things do not themselves possess those properties which make up the content intuited, and there do not exist between them those spatial connections the existence of which between the objects intuited are indicated by them. Our idea of the greater is not itself greater than that of the less, our idea of a triangle is not triangular, and our idea of something which is to the left is not itself situated to the left of the idea of something else which is to the right, having the same position and distance with respect to it which are, *by* the two ideas, ascribed to some two particular points of an object. Therefore, however certainly it may appear to our senses that endless space extends around and beyond us— however self-evident it may seem that the definite local relations of things which we perceive do exist outside of us and between the things themselves — yet our intuition of this space and our perception of these relations proceed from the reciprocal action of impressions, or inner states of our being, of which none has in itself spatial form, and the mutual relations of which are like anything rather than relations of position in space. Hence space and extension are not forms of *intuiting*, that is, not forms in which those mental activities work which produce our ideas of the extended universe; but they are forms of *intuition*, if by this name we

mean to indicate the result of those activities, the finished picture itself, the vision of endless extension which floats before our consciousness as contrasted with the non-spatial and merely intensive activities of ideation to which that vision is due.

If now the very means by which this space-world that we intuit takes hold of our own mind are so wholly unlike that world, we may easily be tempted to conclude that there will therefore be as little, or if possible still less, likeness between it and the outer world by the influence of which upon our mental states the space-intuiting activity of our soul is aroused. Things without form, not therefore unsubstantial but characteristically differenced by the variety of their supersensuous content, arranged in a multiplicity of relations not spatial but intellectual, would then by the direct reciprocal action subsisting between them and men's souls constrain those souls to make the various impressions communicated by things the objects of intuiting consciousness. But in concluding thus, we should have arrived at a right conclusion by a wrong road; for the way in which spatial intuition arises from the reciprocal action of non-spatial impressions in us, decides nothing concerning the spatial or non-spatial character of the external world from which these impressions come. We have long ago reached the conviction that it is in this way that our intuition of space must arise, whether an extended universe exists outside us or not. For even if it existed, our mind, which is not extended, could never be entered by extended images of things, with their relations of magnitude and position; and even if such did enter the mind, their actual existence in the soul would have a different significance from their being intuited. Even the impressions of a real space-world must, in order to exist for us, be transformed into an ordered multiplicity of non-spatial excitations of our soul; and in any case it is only from these that our intuition of the world of space could be built up. And hence psychological investigations as to the way in which the intuition of what

is extended arises in us, or does not arise, but is, may be, innate, cannot decide the question with which we are concerned. Only a metaphysical discussion as to the kind of reality that space, after it has been thought and as it has been thought, could have on account of that which it then is or signifies, can establish its ideality or its Realness.

Now apparently it is not quite easy to say what we really hold space to be, when we think of it as empty and infinite extension; the attempt to do so soon makes us feel the uniqueness of this idea, for the elucidation of which we can find no homogeneous analogies, and hardly any images which are not borrowed from the wholly peculiar nature of just that which is extended. To regard space as something infinite or as a property of things, is to entertain thoughts which no one in the present day will think it necessary to turn back and refute, for even in the pre-Christian era it was plainly seen in what contradictions we should be involved by this assumption, partly as to the existence of things in space, and partly as to their movement through space. And the habit which modern culture has of calling it a form, a relation, or an order of things, is little more satisfactory; for all this is just what it plainly is not—formless in itself, it could serve but as a background, lending itself to the purposes of form, relation, or order, and being in its nature capable of having an endless variety of forms inscribed in it, countless relations subsisting in it, and the most varied imaginable arrangements of a plurality presented in it. But it will scarcely escape observation that this name *background* is but another denomination of space itself; and hence from this correction of the ordinary view we learn not so much what space is as what services it can render to our combining and discriminating intuition of a conceived manifold—it appears as the possibility of the juxtaposition of a plurality; but what it is in itself that makes it capable of affording this possibility remains unexplained. To this we may add that even this last expression involves a circle, for juxtaposition is a kind of simultaneity which is distinguished from

other kinds of simultaneity only by its thoroughly spatial character.

And this very remark may put us into the right way of fixing our attention not primarily on space but on the general laws of extension, letting space itself arise at a later stage from the application of these laws—as without doubt psychologically the intuition of space as an infinite whole comes later. For we have given to us originally, whether as innate gift, or as the first result of the reciprocal action of our impressions, the certainty that any point can be reached from any other point by one, and only one, straight line, that all the points in this line are perfectly homogeneous and equal in value when considered with reference to the two terminal points, and that they hold a similar relation to every other point. We have, I say, the certainty expressed in these statements, or in any others—we need not here inquire what—by which the nature of juxtaposition is so completely expressed that the first principles of geometry may be based upon them. In logical form, our expression is an universal law, as must be also any more exact expression by which its place may be supplied; but yet the peculiarity of its content essentially distinguishes it, even formally, from the formative law which every universal concept imposes on its particular examples. The concept only requires that each instance of it, regarded in itself, should contain a definite group of characteristics combined in a definite manner; hence it does indeed subordinate to itself its individual examples, but it does not establish between them any significant connection, by which they may reciprocally work upon and affect each other. For what we logically call their *co*-ordination, only indicates the complete similarity of the way in which they are *sub*-ordinated to the universal, and beyond the similarity which must of course belong to them on account of this subordination it has no effect upon their reciprocal behaviour, this remaining wholly undetermined by it. The same thing holds of all other general laws which comprise under them a variety of individual cases; they are valid in *every one* of these cases

taken separately, but do not bring the different cases into any mutual connection.

It is quite the reverse with the law of juxtaposition. When it declares that between any two points one and only one straight line is possible and necessary, it not only asserts in a general way that every second or third pair of points is subject to the same law of connection, but it requires at the same time that the second pair should be regarded as connected with the first—in short, every pair with every other pair—in the same way and after the same fashion as the members of every pair with one another. Thus it combines all the different instances of its application into one *whole* which coheres together according to the same rule by which any two of its parts are connected, and does not allow us to think of any single case of its application existing as it were isolated in a world of its own, without attaching itself to this whole as a part of it. Hence it is that here for the first time co-ordination has a special meaning; particular spaces are not only subordinated to a general notion of extension as examples of it, but they are at the same time joined to and co-ordinated with one another according to the general laws of space-construction as parts of one space. Thus it is that space is as it were a picture, and this is the reason why we prefer, and see preferred, for it the name of *intuition*, which denotes something essentially different from that which is denoted by *notion*. In the same peculiarity of the law of extension or juxtaposition which we have emphasized, there is at the same time contained (as in the nature of every series) the possibility of endless progression by which to the members already given new ones may constantly be added, according to the same formula by which the old ones are connected; thus it is that space extends to infinity. By an arbitrarily chosen expression that has a tinge of contempt, we may, it is true, describe this by saying that space is unending because of its inherent incapacity of self-limitation. Without going into scholastic controversies we may cheerfully accept even this interpretation; we are not aware of needing any other infinity of

space than that which is here asserted, and we can hardly regard as the mere lack of some better property its characteristic of not only not resisting any advance beyond temporarily assumed limits, but of moreover pointing out a definite path for such progression. If we put together what we have said, space appears to us as a kind of integral by which that whole is given which proceeds from the summation of all the infinitely numerous applications of the law of juxtaposition, when we abstract wholly from the nature of the reality that stands in those relations, and substitute for it the mere empty framework of the related points. Now when we have once got hold of the intuition of space, space appears to us as the all-embracing whole, in which and through which is possible the multiplicity of all those relations from the summation of which it has itself really originated.

Now if this is the signification of space, the question as to the nature of its reality scarcely needs a special answer. Even those who regarded space as mere empty form fitted for the reception of things, must have acknowledged that empty forms could be thought existing previous to real things only as formed material, and therefore themselves something real and capable of receiving the other real things; as unreal forms, unsupported by matter of which they are the form, they can of course exist only in thought that has abstracted from matter. Just as little could relations and arrangements have an independent existence previous to the things which are to enter into them; they too, if separated from those things, could have a place of existence only in that activity of mind by which they are thought. It is scarcely necessary to add that still less can space as comprising the collected results of an infinite number of possible relations have its existence anywhere else than in the activity of intuition which is conscious of this result of its relating movement, manifested in combination, division, and systematization. Space does not exist *between* things and preceding them in such a way that things are in it, but it diffuses itself in things, at least in

souls, as the extension which can exist only for thought, in which we assign their places to impressions which we receive through reciprocal action between our minds and the outer world, that is the things which are not ourselves. It is only misplaced respect for a venerable error which would rejoin that even the non-existent may exist, and that even relations which have nothing real in them may have an objective existence independent of our thought. There is but cheap wisdom in asserting that even mere appearance and nothingness and error do exist after a fashion; that the sense in which the past and the future are non-existent is different from the sense in which what has never been and what is for ever impossible are non-existent; it is just this fashion and the meaning of this existence which we have above, in treating of our present subject, space, endeavoured to fix in a somewhat better way than by means of these indefinite expressions. We did it by trying to ascertain the kind of reality that can be attributed to space, instead of consigning space offhand to the region of non-existence. And this reality is to be found in its existence as intuition in ideating beings, not in existence as a vacuum independent of them. By such determination its reality is not diminished, but its nature is fixed. As events really *happen* although they never *are;* as light really *shines* although only to the eye that perceives it; as the power of money and the truth of mathematical laws really *exert their influence,* though the first *exists* nowhere except in the estimation of men, and the second nowhere except in the actual things to which they relate—so space has reality although it does not exist but only *appears.* For reality is like a sun that rises upon the just and upon the unjust; it embraces not only the existence of that which exists, but also the process of that which happens and the validity of relations and the appearance of phænomena; the mistake is in attributing to any one of these the kind of reality which can belong only to one of the others, and in complaining when there is assigned to each of them the place and the particular kind of existence possible for it.

§ 2. It was other reasons than those here advanced that led Kant to his doctrine of the Ideality of Space, and caused a further development of that doctrine to which we cannot give our adhesion. Among the thoughts that belong to this subject we will only briefly mention the practice of regarding space as being a subjective form of *human* intuition alone, and of considering it possible that other knowing beings may make use of other forms of intuition which we cannot even guess at. If the chief stress is laid upon reckoning space as an innate *à priori* possession of the mind, as contrasted with that content of knowledge which is brought to us by experience, it is natural to bring into prominence the thought that its peculiarity depends on the nature of the intuiting mind, and that in differently constituted minds different forms of intuition may take its place. Herbart's recent attempt to exhibit all the *à priori* forms of our knowledge as results which must necessarily be produced by the reciprocal action of different ideas in every ideating being, has led to the opposite presupposition with regard to space itself—namely, that to every being whose mode of cognition depends upon a mechanism of reciprocally acting individual ideas, the plurality of his impressions must appear in space-relations. I do not consider it possible to choose decisively between these two opposed views. It seems to me that all the deductions have failed which have attempted to show the necessity that space must be, or must be intuited, either from assumptions concerning the necessary development of the cosmic content or from self-evident laws of the reciprocal action in all ideation. Such attempts, when they took the first way, have only deduced certain abstract postulates from the notion of a self-developing Absolute—postulates which did not even posit space or show how space could be deduced from them; postulates such that he and he only who was already acquainted with space, could guess that by it they would be satisfied. Where they took the second way they have only succeeded in producing space by taking certain figurative expressions borrowed from it (expressions which, as they at first main-

tained, they used only in an abstract non-spatial sense), and reintroducing into them somewhere in the course of the deduction their proper spatial meaning. Hence it does not seem to me to be proved that in every ideating being, whose mode of cognition may be compared with ours, the intuition of a manifold must everywhere take place under the form of space; I would not precisely assert, but still I conjecture that this demonstration, which has always hitherto failed, is impossible.

It was natural and right to oppose this space-world as phænomenal to the world of real existence, but erroneous to exaggerate the distinction between the two to such an extent as to make it appear that they were insusceptible of comparison, and especially (after the fashion adopted by popular culture when penetrated by the doctrine of the ideality of space) to revel expressly in the thought of this incomparability, as though it were a guarantee of everything that is best. It was erroneous to regard space as a form of our intuition, by which things were received, extension being quite alien to things as they are in themselves; for it is certain after all that nothing can be received by a form to which it is not in some way suited. Equally inexact was the expression used by Kant himself—that cognition having for so long accepted from experience the laws by which it judged of things, it was time to see whether conversely cognition could not prescribe laws to things, if only the laws of their appearance—for it is obvious that the cognizing mind itself may determine the general colouring of the reality that appears to it, but in order that it may cognize at all it must receive from the nature of that which appears, at least the special outlines of the phænomenon. More generally expressed, the inadequacy of this view lay in this—that while it attributed the intuition of space to the mind as an innate possession, it did not attempt to explain the application of this possession. We have not only an intuition of empty space, but also a spatial intuition of the full content of the world; and it remained to show how in those empty forms with which, as it was said, we

encounter the reality of experience, this reality can take its appointed position, and assume its appointed form. The solution of this problem was impossible without the assumption that there exist between things themselves manifold connections the special distinctions and meanings of which are reflected in corresponding forms of spatial relation, or may be transposed into the language of space; however unknown and inscrutable in other respects the nature of things may be considered to be, the view in question cannot, without cancelling itself, disclaim this much knowledge concerning them.

In order that this standpoint which we have taken up in the above discussion, and which we do not wish to keep always to ourselves, may become sufficiently familiar to be intelligible, we need only call to mind how, when we draw comparisons, whatever the object of our thought may be, spatial images always press in spontaneously to give the greatest attainable degree of clearness by making it, as it were, visible to the mind. We may indeed think of a non-spatial plurality; but we never represent it to ourselves without distributing the plurality in different parts of co-presented space; we illustrate any unity by spatial boundary lines by which it is shut off from others and shut into itself; there is no abstract idea of variety, contrast, or degree of relationship that we present to ourselves in idea without mentally endowing the content of these notions with visible form, by images of various spatial situation, form, direction, and distance. And even these words (content, contrast, presentation, and so forth), as well as innumerable words which indicate relations (to which the progress of civilisation has gradually attached the abstract signification which they now possess), plainly show, when etymologically considered, that they owe their origin to spatial intuitions. Therefore we scarcely need to exhibit further this capacity of space to give sensible form to the most multifarious variety and gradation of intellectual relations by the unbounded multiplicity of the possible relations between its points; we rather

need to convince imagination, accustomed as it is to this symbolism, that those very relations which it loves to represent spatially have a special meaning of their own, that is merely reflected in this spatial form without being bound to it. The structure of the world of sound or of mathematical truth may serve as illustrations of such relation. Without the spatial images of height and depth and intervals, the relations between tones would not be clear to us in thought, although in sensation we are conscious of their simply qualitative nature; as regards mathematical truths or the relations of pure number, since they have no sensuous images, we more easily comprehend them as what they really are—as systems of members the reciprocal dependence of which, varying extremely in degree, is of a wholly abstract nature, neither standing in need of spatial symbolism for its subsistence nor even, in some cases, admitting of it. These examples will suffice to illustrate provisionally those intellectual relations which we assume to hold between the manifold things which exist. Whatever the natures of things may be, and whatever the general kind of relationship between them, the things will not be insusceptible of comparison, and the closeness of the relationship will be capable of unlimited gradation; hence everything by its nature and the totality of its relations to all other things is not only distinguished from all other things and thereby isolated, but also —like a note which has its own immutable place in the scale, or like a truth which has its own definite place in the system, coming between those upon which it depends, and those which depend upon it—everything has its own definite place, in the fabric of reality, between other things which are related to it with different degrees of nearness or contrast. And, moreover, in correspondence with this intellectual order, everything will appear to a soul in which its influence encounters a capacity for spatial intuition, to have that definite place among the images of other things which seems to be assigned to it by the totality of its intellectual relations to them; and this place which it has will seem to change, and the thing,

itself to move through the intuited space, if these relations which it has to the rest of the world are changed.

The spatial appearance of the world does not altogether result from the mere *existence* of the intellectual order among things; it is only complete when this order exerts its *influence* upon those to whom it is to appear. It cannot therefore be the same to all by whom it is intuited; for in this intellectual whole of the universe souls themselves occupy places at different points of the structure; on these parts, which have different values, the action of the whole is different, and accordingly that whole wears for them a different aspect; to each of them there appears but a section of it, and this with that specially foreshortened projection which corresponds to the difference of the position in the world which this being, as compared with its neighbours, occupies in the intellectual order of things. So as a whole it is indeed the same world which we see, but to each it is different in detail; one person could share exactly the view of another only if he could be transferred from *his own* relations to the world as a whole, into those in which the other stands—a change which to him must seem to be a spatial movement of himself through the space-world which appears to him. An easy continuation of these considerations teaches—what to exhibit here in detail would require a superfluous expenditure of words—that as the images formed by different souls of the space-world surrounding them on the one hand are not identical, so on the other hand they are not without connection. Each appears to every other to have some definite position in the space-world intuited by that other, and each attributes at the same time to his own image in the space-world which he beholds such a position with regard to the image of the other, that in order to change places opposite movements in the same line must seem necessary to each; hence within the space-world, which to each *seems* to stretch between him and the other, whilst in truth it exists only in themselves, each will be able to find the other out, and they will be able by definite movements to meet and enter into reciprocal action. It is neces-

sary to think this out thoroughly for oneself; for philosophic theories have little value if they can only be laboriously demonstrated in the lecture room, and in practical life remain uncredited because it is not easy to find the connection between them and everyday occurrences. Without myself making the attempt here in detail, I venture to hope that a further pursuit of the indications I have given will wholly remove the appearance of paradox which the doctrine of the ideality of space generally has at first sight for the common consciousness. Under the above-explained conditions of merely subjectively intuited space, we have in point of fact exactly what would be afforded us by a real objective existence of space if such were possible; no part of the phænomena with which we are familiar and of their persuasive evidence is inexplicable on our assumption as to the real state of the case; even when our presupposition has been accepted in principle and on the whole, it does not make necessary a violent change in received expressions and ideas that refer to details. As we always speak of the rising and setting of the sun, and shall never substitute for them awkward expressions framed according to the actual and well-known condition of things, we may continue to look at the world, as far as all practical details are concerned, as though space were spread round us and we ourselves were floating in it; it is only when we are concerned to establish ultimate principles according to which all the connection of phænomena is to be judged, that we—just as astronomers are—shall be obliged to recur to the true condition of things as the foundation of all the rules of phænomena.

At this point I would exclude from the circle of subjects we are considering, a department of thought the development of which is indeed important in itself, but would require a diffuseness of treatment which, for the object that we have in view, would not be compensated by any counterbalancing advantage. For the fundamental notions of natural philosophy which we must form concerning the concatenation of physical events will, it is plain, take a very different turn when we

consider space as a real stage upon which all occurrences are presented, and when we regard it as a mere phænomenon in the semblance of which real action between things, which was originally of quite a different kind, comes afterwards to be clothed. In the latter case we can no longer regard movement in space as a performance by which we overcome distance, as though that distance were a reality; we cannot speak of forces having a tendency to move bodies nearer to or further from one another in space, or which at a certain distance would encounter a certain amount of opposition to their action. For us all these simplest intuitions of natural philosophy will need reconstruction upon a new foundation. This reconstruction we do not here attempt, and will only remark by the way that for it many oft-discussed difficulties vanish into nothingness, and in their place others arise at points where, to the hitherto accepted mode of thought, nothing whatever suspicious seemed to lurk. But the problems with which we are at present concerned urge us in quite another direction.

§ 3. Let us grant that the reader was in a certain respect deceived when we compared the intellectual order of things, on which we held the order of their spatial appearance to be dependent, to the relations of sound, or to the articulation of a system of abstract doctrines. What we then needed was a provisional illustration, and to it we sacrificed for the moment the exactness which we must now turn back and seek. The two comparisons are inappropriate because they liken the order of immutable and eternally valid systems to an order that is mutable and merely factual. A system of truths is connected together in but one way, and that a way that never changes; we, choosing different points of departure, may bring its several parts into special prominence in various combinations, and interpret for ourselves the results that flow therefrom; but these results do not *arise* from our procedure; *they* are eternally valid, and it is only in our consciousness of them, that is in the real state of a real being, in our own conscious soul, that something happens which has not existed eternally. The

relations of sound too are eternally the same; they may, like those of the body of truths referred to, afford material for one, but only for one, spatial symbolization. Rightly constructed, this would for ever express the immutable organization of the scale, and be capable of being exhibited instead of the scale itself, as an object of consideration, and its whole wealth of inner relations being simultaneously present would as known vary with arbitrary movements of attention. Things on the other hand do not constitute a motionless organization of a manifold, in which every individual element, in virtue of its constant nature and the unchangeableness of its total relations to the rest, occupies an immutable position; they are, on the contrary, subject to movement, and obviously change their places in the intellectual whole of the cosmos no less than their phænomenal images change their places in space. Hence it follows either that their natures cannot be immutable, but must be mutable in order that the change in their reciprocal relations (which corresponds to the change in themselves) may explain the mutability of their spatial appearance—or the relations in which things stand to one another must in themselves be accessible to a mutation which does not at the same time affect the nature of the things.

If one is led to this alternative by the attempt to deduce the spatial places of phænomenal things from the intellectual places of real things, it is hardly doubtful that one will prefer to make an attempt to affirm in the first place the second member of the disjunction. For do not things as appearing in space seem to move without any mutation of their nature? or if they seem to undergo any such mutation, is it not just the change of place which introduces the mutation and constitutes its cause? But if we think of things as being enclosed in a net of mutable intellectual relations, or as being moveable within this network, we encounter an inconceivability which is essentially the same as that which we have so long been trying to refute under the name of extension, which though empty is yet real in itself. For we regarded objective space as unthinkable, not on account of its special geometrical

nature, but because of its presenting a system of empty relations as an independent whole. But—to take up again a consideration previously indicated—all relations as such have existence and reality only in the consciousness of him whose mind exercises a definite relating activity; apart from consciousness they have not themselves an independent existence *between* the things related or relatable, but there is a foundation for them in the nature of things which are so framed that consciousness is constrained and enabled by their influence upon it, to connect and estimate by means of these relations the impressions which those things make upon it. Hence in the intellectual world also there is nothing *between* individual beings, nothing by change in which the beings themselves can be removed from or brought near to one another, or have their reciprocal action roused or hindered; but all these relations are part of the appearance which the intellectual world as a whole assumes for each of its parts which is capable of having anything whatever presented to it; moreover, by them there is interpreted only that being which springs up within individual beings, that multiplicity of inner reciprocal actions which in reality things exercise directly upon one another, being upon being, without the mediation of any such middle terms.

It must necessarily be difficult for us, considering the mode of apprehension to which the consideration of daily experience has accustomed us, to carry out the abstraction which we here demand; and it is worth while to elucidate it by some supplementary observations before we go on to deduce its further consequences. It seems to us all so self-evident that if an effect arises which previously did not exist, there must have been some mediating process by which it was brought about, and, moreover, all our previous considerations have so expressly and repeatedly made it a duty to seek the mechanical links in all action, that the demand which we now make will have a confusing effect not only in a general way but also as regards the coherence of our train of thought itself. But notwithstanding, we have for a long time been leading up to this

demand. We have already repeatedly emphasized the assertion that we cannot go on indefinitely requiring intermediary machinery for the bringing about of the most simple results and the elucidation of the most simple effects; at some point or other the chain of intermediaries must consist of simple members connected together *immediately* and not requiring something else to hold them together; somewhere or other there must be simple processes of reciprocal action, which consist in this, that the inner condition of some being, as soon as it exists, is the direct producing cause of some fresh inner condition in a second being; there must be somewhere that real sympathetic affinity between existent things which a widespread superstition unfortunately imagines it sees only where, according to the unanimous testimony of experience, it does *not* exist We have already had often enough to convince ourselves that all attempts to explain still further these most simple elements of action and occurrence, to elucidate them by showing the way in which they come to pass, must invariably fail; but they fail not on account of the imperfection of our knowledge, but because the very existence of that which they erroneously seek is impossible.

There is no process of action adapted to bring to pass events which though all their conditions are present are not as yet actual, but only a process of the gradual completion of causes as yet incomplete. If any inner state of a being is the adequate cause of change in another, the change happens forthwith and does not need any process of realization; if that state is not an adequate cause, no process of action could constrain it to a result that does not spontaneously flow from it; finally, if that state can, through a series of intermediate links, pass into a second state, which would constitute the complete cause of such a result, and if there is a disturbance of states by which this transition is accomplished, then previously to the accomplishment each of these intermediaries must be followed by the event which corresponds to *it* as result to cause, and only when this series has been completed will that event occur which flows from

the thus established final state of the acting being as its necessary consequence. Hence the only path by which the primarily given state can attain its final operation, leads through these intermediate events; taken together and in the order of their succession, they constitute what we call the mechanism by which a result is realized. Therefore we can never refer to mechanism to explain how a result arises the complete cause of which already exists in actual states of actual things, and we shall always need a mechanism in order, in any real occurrence, to connect the first member with a final member of which the complete cause had not, under the form of inner conditions of existing reality, been realized by that first. For the significance of mechanism never consists in its being a kind of magic artifice, by which is brought about an event which though all its conditions are complete, yet in some incomprehensible way delays to happen; in every case it is required only in the interests of the constancy and regularity of the cosmic course, which demand not only that every real occurrence should have an adequate ground, but also require that every intermediate link, by which the inadequate passes into the adequate, should itself be previously realized as an actual state of some real being. For only thus is each of these members an active cause, which not only within the being of which it is itself a state carries on the mutation of the inner states of that being, but also becomes the cause of mutations in other beings.

Our previous remarks have been intended to show that reciprocal action is not rendered less thinkable by our not allowing of anything between beings which can separate them or combine them or connect them with one another. It is not external mediation that is needed in action; not a multifarious transporting from this place to that, and from that place to this; we are relieved from all this apparatus by the knowledge that all things being parts of an Infinite that unites them as in one substance, they need no other bond than this in order that the states of one thing may have a determining significance for those of another. Those mediating

links were themselves of an internal and intellectual kind; to things which by the universal metaphysical justice of this Infinite cannot in accordance with their meaning follow directly one from another, they give reality by making actual the intermediaries which render it possible that those things should follow from one another in accordance with this meaning. There *is* therefore nothing else than an eternal universal inner stream of reciprocal action in things; its individual waves are not caused by impulses communicated to things from without, they arise from the native consistency, according to which any previous state of a being that is not separated by any gulf from the inner existence of another, *becomes* directly a subsequent state of this other; we must get rid once for all not only of the thought of a network of spatial relations along which the conditions of action run backwards and forwards between things, but also of all idea of supersensuous intellectual bonds of connection which, lying outside of things and sometimes contracting and sometimes expanding, at one time bring things together so as to produce action, and at another break the contact necessary for reciprocal action.

If I have succeeded in making clear what I mean, I shall certainly be expected to give an answer to one other question. The ordinary view took pains to ward off all mutation from the inner nature of things, and held that change was only to be admitted in external relations. Now how can our present view—which puts all action wholly *in* things, and supposes universal mutability of their states — comport with the assumption of the unity which we ourselves have repeatedly pointed out as essential to the nature of everything? I might fairly pass this question over, if I were less in earnest; for even the views which most strongly emphasize the unity of the nature of things must in the end reconcile with that unity not only a change of inner states but also a simultaneous plurality of such states, as otherwise they would be destitute of a source from which to derive an explanation of the way in which events can occur at all. I forego this way

of escaping the difficulty, though at this point I cannot fully answer the question proposed; and, on the contrary, expressly admit that I only wish to dispose of it provisionally by (for the present) merely referring to a previous exposition (cf. i., pp. 168 *seq.*, 536 *seq.*) concerning the meaning of that unity which we really have reason to require in things. That exposition taught us to seek this meaning only in the consistency with which changing states of anything are so connected together that—having regard to the conditions under which they arise—they appear to be varying and manifold expressions of one and the same thought, in the realization of which the being of the thing consists. But we could never require unity in the nature of a thing in the same sense in which we are accustomed to use this expression to denote the monotony of an absolutely homogeneous quality; unity of this kind can never be real, but is always a property of something else which is Real, and even this not in the signification which it would have if it could ever *be* even a part of the nature of this something else; on the contrary, it is everywhere but a partial appearance which that thing wears for some consciousness which intuits it. Every simple quality exists only when it is perceived and only for him who perceives it; if it could exist anywhere independent of him, it would still certainly not be the nature of anything, for in its simplicity it can only be or not be; it cannot so change as to remain, in some fresh condition of its existence, the same that it was in a previous condition. But only that which is capable of and can outlast change can be substance, and this capacity things must have in order to be things; the invariable, which can *only* either (1) *be* while it continues entirely homogeneous, or (2) be annihilated and give way to some other that takes its place—that thus may indeed have its turn of existence with others but cannot change *itself*—is always something unsubstantial that may be a predicate, but can never be a subject of predicates. However, I admit that this consideration does not completely answer the doubt expressed, further discussion of which we reserve for a short time.

§ 4. Having given these somewhat detailed explanations, we can now briefly add our later results to the previous ones, in somewhat changed order.

IV. The nature of everything by which it is distinguished from other things is one, as regards its consistency, but never simple in the sense in which a homogeneous quality is simple. An adequate knowledge of that nature (supposing such to be possible) would understand it in the form of a thought or of an Idea, for the unchanging meaning of which there are innumerable differing expressions, appearances, and verifications under differing conditions. With the limitation of never being or appearing, doing or suffering anything that is not a consistent expression of the fundamental thought which constitutes the being of anything—with this limitation everything is mutable, and can only be a thing or substance if it is mutable after this fashion.

V. The objective relations by which the commensurable natures of individual things are brought together for the *realization* of the result of which the content that is *thought* together is the *basis*, do not consist in spatial movements. The case is not that things are in space, in which they can move, but space is in things as the form of an intuition through which they themselves become conscious of their supersensuous relations to one another. The place occupied by any element at any definite moment on account of the totality of the relations which it then has to all the rest in the intellectual order of the world, determines the place in space at which this element must be intuited by the rest; to the change which the element experiences in the intellectual order there corresponds in spatial intuition the movement which hence has to be regarded as change of place, but not—at least not primarily—as a passage through space.

VI. The supersensuous order upon which we suppose that of the apparent spatial cosmos to depend, cannot be regarded as a mere intellectual counterpart of space in such a fashion that it too, like a web of independent and changing but non-spatial relations, comprehends things in itself and extends

between them just in the same way as (according to an earlier view) space was supposed to have an independent existence as an encompassing background and as empty extension. *All* relations, even these intellectual relations, exist as relations only in the relating mind at those times when it exercises its relating activity. Therefore the supersensuous order of the world does not consist in a tissue of complicated relations *between* things, sometimes contracting, sometimes expanding, but only in the totality of the reciprocal action between things taking place in the world at every moment. The actions are not produced, changed, and organized by a multitude of impulses running backwards and forwards between things, but they themselves being comparable in meaning, and hence subject to universal laws, produce in one another impulses that become realized without the help of any mediating mechanism, and arrange themselves, according to their meaning (as constituents of the world's content which stand in need of one another), in that intellectual order which is *valid for* them but does not *exist between* them.

## CHAPTER III.

### THE REAL AND THE IDEAL.

Contradictions in the Notion of Things and in their Formal Determinations—Idealistic Denial of Things—All that is Real is Mind—What it is that we must seek to Construct, and What it is that we have to Recognise as immediately given—Summary.

§ 1. WHAT we have recorded hitherto as the results of our reflection has been of essentially formal significance; we have sought to make clear to ourselves the conditions under which it seemed that reality (*Wirklichkeit*) of existence could belong to any being whatever its nature, and reality of occurrence to any event whatever its content; but we have not yet sought to determine *what* that may be which is, or happens, according to these conditions. In doing this we have perhaps had in some measure the feeling of a rich man who is not concerned for the moment to reckon up his possessions in detail, but contents himself for the present with marking in such a way his numerous flocks and herds whatever they may consist in, that in case of need he would be able to recognise and to find his property. But a certain feeling of perplexity takes hold upon us now that the time is come for really (*wirklich*) showing in what our possessions consist, and giving an account of what actually are the things and the events which really being or happening satisfy the conditions that we have sketched out. Wherever we may look there seems to be nothing that we can specify—all that according to the ordinary view forms the content of reality, the many-coloured impressions of sense and the multifarious forms and movements of the extended universe, we have been forced to regard as phænomena which do indeed reveal changing relations in that which is truly real, but do not point out what it is that this true reality consists in.

Now one might hope to get rid of this perplexity by a candid confession of human incapacity—by acknowledging that what things are in themselves and what effects they actually have upon one another in reciprocal action, must remain for ever unknown to us; that only from the varying relations of that which appears is it possible for us to conclude to formally corresponding variations of this unknown, variations of which, however, we can never cognize the actual content. But the more certain we may be that at some point or other we shall be brought to this confession, the more necessary is it not to reach it prematurely, and by so doing avoid investigations which we ought to undertake even though they may promise no other result than the knowledge that we were mistaken with regard to that which our confession of incapacity assumed to be the highest attainment of cognition possible for us.

We shall do well to distinguish two kinds of ignorance. It may be that of anything which we are seeking in order to the fulfilment of some definite requirement of cognition, the general notion under which it should be thought is clear, while we perhaps only lack grounds for deciding among which of the various species of this universal we should reckon that which we seek. It may, however, also happen that nothing is clear to us except the need which we desire to satisfy by that for which we are seeking, and that of the essential nature of that which would be fitted to afford such satisfaction, we have not even, as it were, a generic image showing the possibility of that which we seek. If with regard to the question which at present occupies us, we found ourselves in the first of these two cases, we should be satisfied. To speak figuratively, we should then know not indeed *what* colour things and events would wear, but that they would have *some* colour, that is that their nature would be determined by some species of a genus familiar to us, the existence of which would be guaranteed to us by the generic image that we have of it.

Certainly in the present day people often think that with

regard to the notions by which it has hitherto been attempted to determine the being of things, we are in this comparatively favoured position, and possess, in those notions, truths which rightly mark out the genus of reality, and only leave undetermined the special colouring, the knowledge of which we can if necessary do without. But to me it seems as though we were in the second and less favoured position, like a geometer who, having before him the result of an analytic calculation, cannot hit upon any geometrical construction by which that which is abstractly required may be presented in intuition. It seems that, as regards the formal conditions which we require from being and action, we are not only not in a position to point out any essential characteristic of that which is Real (*Real*), by which those conditions may be satisfied, but that those demands themselves require, with reference to reality, much of which either we perceive that it can *only* be thought, and cannot *be* and happen elsewhere than in thought, or at least of which we cannot perceive how it can be anything *more* than thought, how it can hold good of reality or occur in reality. Taking a brief retrospect, I will illustrate the importance of this consideration by the thoughts which we have gradually developed concerning the τὸ τί of things, their unity, and the mode of their existence.

In the popular view the essence of things seems at first sight to consist in sensible qualities. But it soon becomes plain that these are only states of our sensation, resulting in the most plausible case from reciprocal action between things and ourselves, but neither capable of existing except in him who feels, nor fitted, even if they could so exist, to constitute the nature of a thing. We took refuge in supersensuous intellectual qualities. That this name is not a mere combination of words destitute of an object, that there is something corresponding to it, we believed we could show by reference to mental properties which—as the properties denoted by good, evil, holy—seemed as a matter of fact to present examples of a content supersensuous and at the same time like sensible qualities in their simple intuitable definiteness.

But this was only seeming. Having regard to constancy of action, learnt from past experience or assumed for the future, beings might have these attributes imputed to them, and in contrast to the individual actions manifesting the attributes, the attributes themselves then look like original simple qualities; yet in themselves they only indicate a kind of demeanour of things, not what things *are* in order that they should demean themselves thus—this latter, however, being what we sought. And then one might think for a moment what it would be to look away from all illustrative examples, and to seek the being of things in qualities of quite another kind—a kind of which no one can form the slightest idea. But in doing this one would commit the error, so often blamed, of confusing the expression of a necessity of thought with actual knowledge of the object in question, and of believing that demands have been fulfilled by the mere fixation of them in a verbal expression — whilst either it cannot be shown that those demands are capable of being fulfilled by the reality to which they refer, or it can be shown that they are not capable of being fulfilled by it. For the name *unknown qualities* does indeed express, by the name *unknown*, our incapacity of cognizing those qualities; but in calling them *qualities* it keeps up the erroneous appearance of our having at least the general notion under which this unknown may be correctly thought as one of its species. Now not only have we no idea *what kind* of quality constitutes the being of things, but we err even in thinking that we may subsume this under the *general notion* of quality. For this name *quality*, as long as it has any definite meaning at all, always denotes something that by its nature has reality only as a state of feeling of some sensitive being, but which except in such a being, except as felt, cannot *exist* either independently or in dependence on something else.

It would seem then that nothing remains for us to do but to regard the being of things not as an unknown quality but simply as unknown. But even this complete renunciation of all pretensions to knowledge proves untenable; for as long as

we wish to speak of things at all—and it is not apparent how we can comprehend phænomena without supposing things—we must assume that things have a nature capable of producing varying appearances under varying conditions. In this respect too, as we have already pointed out, a simple quality, even if it could *be*, would be incapable of constituting the being of things—that being, it seemed to us, could only consist in the unchanging significance of a thought which, without changing its meaning, manifests itself in different ways under different conditions. Now the word *thought* has a double meaning, signifying on the one hand *the activity of the thinker*, in virtue of which all his thoughts are thoughts, and on the other hand the *content thought*, by which one thought is distinguished from another. We have, of course, intended here to employ only the second meaning; things are not the thoughts of a thinker, but their being is so constituted that if knowledge of their content were possible at all, it could be adequate only in the form of a thought, combining many individual ideas by definite relations into one significant whole; this nature of things itself, however, remaining an undivided unity, and by no means consisting of the plurality of relations and related points which we require for its representation in cognition. That this mode of thought also has its secret defects was betrayed by the difficulty which we had in rather silencing than refuting objections to it. The question how that which is in us the content of a thought can, independent of us, be a thing, we put off by the remark, just in itself, that this difficulty would recur in any case; that whatever image we may frame in thought as to the nature of the thing, we are still left asking how that which is in us a thought-image can, without us, be a thing; that therefore we should not seek to know how reality is produced, and that it is enough to know the content which, when realized after a fashion which must be always incomprehensible, is a Real thing. But all this is not quite convincing; a thought in order to become a thing needs not merely this affirmation of reality that requires only to take it as it is found and posit it, but the

thought itself lacks something in order to be that which when posited would be a thing. The thought, however affirmed, posited, or realized, would remain an existing thought and no more, and that this is not quite what we mean by the name *thing*, we certainly feel, although we may find it hard to point out what is lacking. We shall perhaps most easily get a clear notion of it by recalling a view which, little fettered by such scruples as ours, delights to characterize the being of things with the utmost brevity as an operative Idea. Here we see exactly what we want—the possibility of being operative is lacking to the realized thought, if it is nothing more than that. That identity with itself of the thought-content which we presupposed, as confirmed in the most diverse forms of its expression or manifestation, actually has reality only in as far as we think it, and follow it out in a train of thought which, bringing together its different steps, can become conscious of itself; we, the thinkers, in accepting a definite Idea, as determining the direction of our reflection, or in, as it were, putting at the disposal of that Idea the real living power of our thought—we alone it is who realize its identity with itself, by seeking for and finding that identity; it is we alone who by so doing give to the Idea (which yet certainly was a valid truth without any co-operation of ours) the only kind of reality that could possibly belong to it, namely that of being a thought really thought by some thinker. Our intention and our living effort either theoretically to recognise the meaning of the Idea, in all its instances or consequences, as self-identical, and to remove all apparent exceptions to this consistency, or in practice to carry out the Idea under the most diverse circumstances, to get rid of all opposition to it, and to secure an adequate expression of its essential content under the most varied conditions—all this alone it is, this action of our own, that lends to the Idea the appearance of real active efficacy, power of self-conservation, and impulse to development; these appertain to the Idea only in as far as it is thought by us, while according to our previous view they appertained to it in as far as being an unthought and objec-

tive content—thinkable indeed, but only incidentally so—it constitutes things. This requirement is one that cannot be fulfilled; for the permanent and tangible difference between thoughts and things will ever consist in this, that the contents of thought, both when differing and when similar, may be put in opposition without having any effect upon one another; things on the other hand are disturbed by one another and offer resistance; it is true that they do this in accordance with the content of their nature, which is perhaps susceptible of being expressed by thoughts, but this capacity of conflict and this active efficacy do not accrue to them *from* that Idea of their being which they vindicate *through* them. This then is what was wanting; if we express the being of things as actively efficacious Idea, we do, it is true, express correctly enough what we need, but as a matter of fact active efficacy does not on that account accrue to the Idea with the ease and speed with which we can bestow it on the Idea in speech by means of an adjective. On the contrary, it remains doubtful whether the name of *operative Idea* without addition or omission denotes anything which exists or can exist; the presumption is *against* its validity, for it is plain that in it we transfer to Ideas regarded not as thought but as existent, a power which demonstrably belongs to an Idea only when it is thought.

The difficulties to which the idea of the unity of the thing in the course of its mutations is subject, are not merely connected with what we have referred to above, they are intimately related to it. After having convinced ourselves that things could no longer be things if they had the absolute rigidity of complete unchangeableness, we found their permanence to consist only in the logical connection between their internal states. What then exactly are the states of a being? We know what we mean by this expression in two cases—the first is where we are concerned with the various possible arrangements of a plurality; there is reason for understanding *these* arrangements as being not really different facts but different states of this plurality, only in as far as one feels

justified in regarding this plurality as a coherent whole, and some primary order as an original law destined for the self-conservation of this whole. The second case is presented by our own inner life; in it our ideas, feelings, and efforts appear to be in their nature the states of a being, of the necessary unity of which, as contrasted with them, we are immediately conscious. The first case has no interest for us; and that which in the second case makes inner states possible, does not seem transferable from the Ego to the non-Ego. For these inner events appear to us as states only through the marvellous nature of mind, which can compare every idea, every feeling, every passion with others, and just because of this relating activity with reference to them all, knows itself as the permanent subject from which, under various conditions, they result.

Now it might be said that though on account of its lack of consciousness it may not be possible for a thing to *know* its states as belonging to it, in the same way that we know our states as being ours, yet in the unity of the thing its states may always *exist*, for even our states do not *become* ours by becoming apparent to us. But such reasoning we cannot admit. If a thing within those limits within which we have admitted that it may change, setting out from the value *a*, gradually acquires the values *b*, *c*, *d*, . . ., then our thought, comparing these values, may always recognise in them members of a series which, taken altogether, are connected together in the logical coherence of one identical law of development—but in what way could it be shown that those values are *more* than the realized members of that series, simultaneous or successive, yet independent of one another? that they are to be thought not as separate realities that alternate with one another, but as states of one being that changes in them, and holds them together by the continuity of its presence in them? It is of no use whatever to say, We believe that it is so, and have never held any other opinion; the important point is rather to be certain that in real things those conditions are fulfilled under which that which is thought can be actualized. Now the possibility of

regarding our inner experiences *as our states* depends not at all upon the bare general predicate of unity, appertaining to every substance, not to the Ego alone but also to things; but upon the special nature of consciousness, by which the Ego is distinguished from the non-Ego. It is only because memory and recollection can range the past beside the present, only because a relating activity of attention can comprehend variety and produce in contrast to it the idea of the permanent Ego —in short, only because we *appear* to ourselves to be unity, that in truth we *are* unity. Supposing that a mind reacted at every moment to external stimuli, and that these reactions taken together would constitute for a second observer a series as logically coherent as the most scientifically developed melody, but that the mind itself knew nothing of this, but was destitute of memory and at every moment absorbed in the action that at that moment it was carrying out, and at every succeeding moment forgot in the new reaction all remembrance of the preceding one—then this mind would no longer be a *changing* unity, a substance *self-conserving* in the midst of change; it would be a series of real existences succeeding one another according to a definite law—existences of which it would be impossible to say wherein their similarity differed from the similarity of substances that were originally distinct and continued to be distinct. Hence there would not be the slightest ground for calling the members of this series the states of one being, and that unity which we are thinking of when we speak of the states of a being, cannot therefore be simply transferred from the Ego, in which is the special ground of its reality, to things in general, in which this special ground is lacking.

Let us pass on, finally, to our third difficulty. It seemed that we must characterize the existence of things as relatedness. But when we tried to give a name to the relations referred to, it seemed that spatial connections (which really afford us the only intuitable example of that which we mean by relation) are received by us as holding not of existent things but of their appearance. We substituted for them

supersensuous intellectual relations; that this expression really signifies something that is actually to be met with, we believed to be testified by all the graduated relationships, similarities, and contrasts which we find between non-spatial sensuous qualities or abstract truths. But when we came to examine these cases more closely, they all turned out to be something different from what we wanted. It is true that they all as causes determine the content of some future event as their result; but we could not regard them (as we formerly did spatial relations) as variable conditions, which sometimes bring together things the natures of which remain unchanged, so as to cause the realization of consequences which have their basis in those natures, and sometimes hinder this realization. And here, again, we might for a moment have amused ourselves by inserting between things changeable relations of quite another kind, namely such relations as no one can frame an idea of, and by making the changeable action of things dependent on their sometimes increasing and sometimes diminishing closeness. But then we remembered how perfectly vain it would be to invent a special and mysterious kind of connection for this end; the general concept of relation is wholly adverse to every attempt at such objectifying. *No* kind of relation could be assumed as subsisting between things, acting upon them, conditioning, preparing, favouring, or hindering their reciprocal action; but reciprocal action itself, the passion and action of things, must take the place of relation. Just when and in as far as things act upon one another, are they related to one another; there are no objective relations other than this living action and passion, and least of all relations in which things merely *stand* provisionally, without having any effect upon each other's natures, only coming to act later, as a result of this relatedness; the mode of expression here reprobated is figurative, and we now no longer doubt that in a metaphysical point of view it is wholly meaningless.

But have we now reached the conclusion of the matter? Hardly—for what more could we understand by the action of

a thing than that a change of its states is followed by a change of the states of some other being? To this succession it is due that as we reflect and compare, we regard the second event as emanating from the first, because perception of it is conditioned by perception of the first; but there does not exist between things any authenticated connection of such a kind as that a state of one is wrought by the activity of the other. When we call the active element *active*, properly speaking we say *of it* nothing whatever; we simply affirm that a second being suffers in consequence of its states. But is this suffering or passion itself clearer and more significant than that action? What meaning has this expression when applied with such generality to the changes of state of any existing thing we choose to consider? We fear that it has not any which can be specified. For in characterizing the change of any being not merely as the appearance of a new condition in place of an earlier one which vanishes away but as passion, our intention plainly is to indicate that the unity of the being feels and wards off the imputed change as prejudicial to its own permanent nature. But what we thus require can never be performed by a being in the nature of which we presuppose nothing but a capacity of being changed and also of being not wholly changed, but of preserving or restoring from change an abiding part of its essential content —it is only we who, feeling pain and joy, desire and aversion, measure by them the value of our inner states for our own being. It is only in this *feeling* that actual suffering, to which we have here tacitly referred, really has a place; and every time that we apply this word to unconscious existences its real meaning vanishes, and with it that for the sake of which we desired thus to transfer it. That which does not feel good and ill suffers as little as it acts; but that which cannot suffer is no Real (*reale*) unity, and is not for itself, but only for the apprehension of some other, a whole that deserves to be called by one name.

§ 2. If we bring together the results of the foregoing observations—which, dry as they are, we could not well avoid—

we find that concerning that nature of things which has to be assumed in order to make the course of the world intelligible, we are forced to make definite presuppositions; but are not only unable to say how things could set about satisfying these presuppositions, but have also to acknowledge to ourselves that the nature of things, thought as we think it, is adverse to the fulfilment of the demands which we make upon it. Three inferences which seem to exclude one another, and yet finally lead to the same goal, make it possible for us to hold such a conviction. Either we content ourselves with ascribing to our notions of things (as we previously did to the intuition of space) only a subjective validity as forms under which there appears to us the unity of the real world, which in its true shape we are incapable of cognizing; or we give up the thought of things, which we cannot work out to a satisfactory conclusion; or finally, we supplement the notion of things in such a way that it includes the conditions under which those demands upon their nature which we could not retract become capable of fulfilment.

Against choosing the first of these three ways no objection can be made, if it is taken to signify a complete breaking off of all investigation, and an unconditional renunciation of all pretensions to knowledge; but as a proposition containing a permanent addition to knowledge in the form of a positive assertion, the view from which this resignation flows cannot be maintained. For however much one may think that the nature of things is in itself beyond the reach of all knowledge, so that even the most unconditional and certain declarations of knowledge concerning things can only be understood subjectively of the mode in which they appear to the cognizing mind—even in such a case our assertions are not intelligible unless we presuppose the existence of things, and reciprocal action between them and us, for only thus can we give to the notion of their appearance a meaning that is intelligible and capable of being stated. Hence we should always in one breath both deny the cognizability—even in the most general way—of the nature of things and of action and (in order that we may be able to speak of their appearance) presuppose

afresh the validity of our most general determinations of both; a familiar circle, from which this doctrine of Subjective Idealism has never been able to escape. Now this circle might itself be put to the account of that imperfection of our knowledge which we are forced to recognise, and it might be admitted that *we* certainly cannot explain how the phænomenal world can originate for us except by supposing that things have some kind of influence upon us, but that this reciprocal action of which we have a notion indicates the ground of that appearance, not as it is in truth and fact, but only in a way that is comprehensible to us. But then the things presupposed by us and the action assumed between them, would be wholly emptied of all special content of their own, altogether incapable of being intuited, indeed wrongly called by the names of *thing* and *action*, and would probably signify nothing more than the wholly unknown cause of our perception of the world, or rather our craving for some such conditioning cause. What is maintained from this standpoint would be as follows: thought, in order to make its own activities intelligible, is obliged to suppose a producing cause of them, and to present to itself in idea the conditioning power of this cause as a varying action of external things upon itself, being yet at the same time forced to recognise this whole mode of presentation in idea as only its own explanation of that cause, or of the action and passion which it attributes to that cause—this explanation being one that is not truly accurate. And in this case the notion of things must be reckoned among the ideas by which we seek to interpret our perception of the cosmos; it does not stand alone, established from the beginning by a special revelation, so that it would only be our further metaphysical thoughts concerning the unity and reciprocal action of things that would be incapable of combining with it as established truth; it too is, on the contrary, a product of our thought, the necessity and validity of which may be matter of question.

And here we—following the example of the historical development of philosophy—turn to the second of the ways

above pointed out, namely that of Idealism. That all sensuous impressions which supply the content of our image of the cosmos, and all ideas of relations to which its order is due, are subjective states and activities of our mind, is an observation that at an earlier stage (cf. *supra*, pp. 346 *seq.*) seemed to us an inadequate ground on which to found the conviction that the whole phænomenal world which floats before our consciousness is but the product of a mysteriously ordered play of our imagination. But we here reach a similar view with better reason—not the subjective source of our idea of the world, but the very content of that idea, as we seem forced to think it forbids us to concede to it any other reality than that of an appearance in us. In pursuing the course of this Idealism for a while, we will assume that the lonely thinker may have been tempted, at least for a moment, to regard all physical and mental reality as an ordered dream of his personal individual Ego, the only Real thing which he immediately knows; but then his scientific instinct will, by some easily supplied middle terms, have brought him again so near to the ordinary view as to make the reality of other individual minds with which life brings him into contact, as indubitable to him as his own. It is only the realm of things, an intermediate region, which to the ordinary view seems to be spread out between minds, and by its own changes to initiate, keep up, and guide their inner life, that Idealism declares to be a mere appearance *within* minds. According to Idealism conscious beings interpret the connection of their own direct action and reaction by the image of a world of changeable things inserted between them, and acting upon them, in the same way as (according to our earlier assumption) in spatial intuitions the intellectual order of a world of things in themselves then presupposed by us, became transformed to the image of a space-world embracing those things themselves.

At any rate (so this Idealism maintains) the phænomenal world in which all minds have a common interest, and in which yet different minds participate with differences which have a correspondence among themselves, cannot have its

ground in individual minds as such. But why should we seek this ground nowhere but in the presence without us of a multitude of things, when, on the one hand, what these do towards explaining the microcosmic order can be done without them, and, on the other hand, we always fail to understand how things can do that which they must do in order to be things. For when it comes to the point, the assumption of things has no other use for us than this, that things mark for us fixed positions in the real world, positions in which we find, grouped together and realized, causes which give rise to results, points of departure for some occurrences which we call their effects, and, as it were, the goal of other occurrences which we call their states, although we cannot make it clear how these things possess an inner nature from which actual effects could proceed, or which could experience actual suffering. To regard these points of intersection of action—which are in themselves wholly empty and selfless, and seem on the one side to bring together that which on the other side they disperse again—as Real beings, may be a fiction convenient for our survey of the connection of phænomena, but must not be affirmed as an established dogma; on the contrary, this assumption must give place to any and every other which affords an equally intelligible explanation of the course of the world, without requiring the impracticable assumption of the Realness (*Realität*) of that which is destitute of all the inner conditions of Realness.

Now such an assumption offers itself to Idealism in a conviction which we have already reached by another path—the conviction that all individual things are thinkable only as modifications of one single Infinite Being. What might be the positive signification of this word *modification* we left in obscurity; it sufficed for us that it denied the independence of things with reference to the Infinite Being. We did not mean that the Infinite should be conceived after the analogy of some plastic material from the various parts of which all the multitude of different things should be cut out, and become independent objects; but if

we now explain our meaning to be that things are states of the action and passion of the Infinite, we do not imagine that they—though without attaining the independence of self-sufficing substances—have reality as such states of the Infinite, elsewhere than in minds; we regard them rather as acts of the Infinite, wrought within minds alone, or as states which the Infinite experiences nowhere but in minds. Manifesting itself in the individual mind, and being in it and in all its like the efficient source of their life, the Infinite develops a series of activities, as to which *how* they take place remains incomprehensible to finite consciousness, which intuits their product, as they occur, under the form of a multiform and changing world of sense. In this appearance which it presents to the eye of our mind, the Infinite exerts its own unity after a double fashion. For to the observing consciousness it first shows that similar consequences are attached to similar causes, and different consequences to different causes, thus revealing the logical consistency of its action which is governed by general laws; and also among the changing phænomena produced by the varying play of its action, there are brought into prominence the images of Things with their perdurable natures, as witness to certain and constant activities that are always maintained in it, and the rich content and significant reciprocal relatability of which it unfolds in the multiplicity of those changing events. Finally, being actively efficacious in all individual minds, as a power which in the whole spirit-world has assumed innumerable harmonious modes of existence, the Infinite brings to pass the exhibition of those same universal laws, by the totality of the various world-pictures which arise in various individuals; and moreover, the constant activities which appear to every individual mind as the real points of contact and intersection for the events within its world, are exercised by the Infinite with such accord in all that the same things—or at any rate the same world of things—appear to all as a common object of intuition, as an external reality common to all and connecting all.

This explanation of the world given by Idealism with reference to the relation between individual minds and the Infinite would still leave outstanding some obscurities which we do not yet wish to draw attention to; but it would certainly make superfluous the assumption of Real things in which are lacking all the inner qualifications of Realness. But whilst Idealism thus reduces to mere appearance that which as thought could not be a being at all, we held it possible to take a third path, which amounts to this, that we add to our idea of things that which their content seemed to lack in order to make Realness possible for them. In fact, if the doctrine of Idealism reserves to spiritual beings the Realness which it refuses to selfless things (and this it tacitly does), what hinders us from finding in this mental nature that addition which the previously empty notion of things needed in order to become the complete notion of something Real? Why should we not transform the assertion that only minds are Real into the assertion that all that is Real is mind—that thus things which seemed to our merely external observation as working blindly, suffering unconsciously, and being self-contradictory through their incomprehensible combination of selflessness and Realness, are in fact better internally than they seem on the exterior—that they, too, exist not merely for others but also for themselves, and by this self-existence are capable of being after the fashion which we have felt compelled to require of them, though hitherto without any hope that our requirement could be fulfilled?

This assumption of a soul in all things would be much nearer common opinion than the more artistic view of Idealism; we ourselves have previously been led to it by other causes, and it has so many roots in the human mind that from the most varied standpoints we might describe the satisfying and interesting prospects which it opens to us concerning the connection of things. But we would now turn with indifference from all these inducements, and devote ourselves to some other questions raised by a comparison of the two views which we have last developed. As I have

already noticed at an earlier point, their assertions have much more affinity than at first appears, and I fear lest there should be maintained between them a distinction which would rest upon an inadmissible prejudice. Idealism, it will be said, denies that things have Realness, and regards them as being by their nature incapable of detaching themselves from the Infinite, of which they are states, and attaining complete independence; whereas the last-mentioned view allows Realness to things, in that it regards them as having minds, and minds (in the self-existence (*Fürsichsein*) which constitutes the distinctive peculiarity of their nature) possess that which makes them capable of existing not only within or in dependence upon the Infinite, as states of it, but also detached from it and in self-dependence. This mode of expression would involve the thought that the attribute of mentality is merely the legitimate ground in virtue of which beings which have minds can obtain Realness as a form of existence distinguishable from that self-existence to which we have referred. The influence of this thought is frequently encountered in the region of religious speculation, where it gives rise to the familiar question, whether the world, or things, properly exist in God or not, whether they are or are not immanent in Him—the complete dependence of the nature and existence of the world (or of things) upon God being conceded from the first. The answers to this question, whichever alternative they may assert, plainly betray the opinion that it is not existence in God which would make the complete Realness of things indubitable, but only an existence *external to* God, whether that existence were original or due to some creative act of God. Thus they regard Realness as a definite formal relation to God, which they characterize by spatial images that are certainly wholly inadequate; of this relation they presuppose universally that it gives independent existence to any content to which it applies, and they will only admit partially and in detail that it is not every content which can stand in such a relationship, but that the title and the capacity thus to stand must be the result of some peculiar

advantages of natural endowment. That this could not be our view, and why it could not, may most simply be made clear by the consideration to which we now proceed, in which for the sake of brevity we shall retain to some extent the phraseology of those religious investigations which we have mentioned, although our doing so is not perhaps quite justified at this stage of our reflections.

Let us assume that in God the idea of a definite content is thought in such a way as to include all the consequences which it has in the world of the divine thought, these thoughts of God being at the same time the very power which is in finite minds the efficacious cause of their intuition of the world; or, in other words, let us assume that in the Infinite a definite activity is so exercised that at the same time—as must happen in consequence of the unity of this Infinite—there are also consistently exercised all those other activities which, in accordance with the universal orderliness of the action of the Infinite, must flow from that one; and that this activity of the Infinite is again the efficacious power which produces in individual minds the image of an external world:—if we assume this, then according to the view of Idealism, these inner acts of the Infinite really are the Real forces which (being in fact efficacious within the Infinite, each calling out and conditioning the other according to law) produce true action, that is at the same time incidentally perceived by individual minds as a world of external things embracing them all. And now we would ask ourselves, What exactly would be gained by these thoughts of God or these states of the Infinite, both of which have now been thought as immanent in God and in the Infinite as states of the one or of the other—what exactly would be gained (to use the phraseology of the discussions referred to) by their being *external to* God, or what exactly would be gained for them by being dissatisfied with this their immanence in God, and finding out for them in addition to this some transcendental existence? Finally, in what would this existence external to God ultimately consist, and what would be the *real* meaning of

that which is figuratively intended by this spatial expression *external to?*

If one ponders these questions it will be found that nothing whatever is gained for selfless unconscious things, but that they rather lose by having ascribed to them that existence external to God; all the stability and all the energy which they exhibit as active and conditioning forces in the changes of that course of events which is visible to us, they—thought as mere states of the Infinite—possess in all the same fulness as if they existed as things external to it; nay more, it is only through their common immanence in the Infinite that they have in any degree—as we saw earlier—that capacity of reciprocal action that could not belong to them as isolated beings detached from that substantial substratum. Thus by doing away the immanence of things in God, we reap no advantage as regards that which things should be and do for one another and in connection with one another; but it is true that as long as things are only states of the Infinite, they are nothing *for themselves.* It is desired that something should be gained for things themselves; this is plainly what is meant by the insistence upon existence external to God; but the more genuine and true Realness of *being something for oneself,* or more generally of *self-existence,* is not attained by things by their being made external to God, as though this transcendency (of which it would be wholly impossible to give the exact significance) were the precedent formal condition to which self-existence were attached as its consequence; but in that a thing is something for itself, consciously refers to itself, apprehends itself as an Ego—by just this, which is its very essence, it detaches itself from the Infinite. It is not that it thereby *acquires* an existence external to the Infinite, but that by the very fact it *has* such existence; it does not fulfil thereby a condition by which is secured to it complete Realness, as a kind of existence including and bestowing something other than is contained in the condition itself—but self-existence or Selfhood (*Ichheit*) is the only definition which expresses the essential content and worth of that which we, from

accidental and ill-chosen standpoints, characterize formally as Realness, or independent existence external to God, in contrast to immanence. He therefore who, constrained by necessity, regards minds as well as things, as being states, thoughts, or modifications of God or of the Infinite, yet as not serving merely to propagate the logical results of the nature of the Infinite from point to point, being connected amongst themselves as links of a chain, but as also feeling that which they do and suffer as their states, in some form of relation to self (*sich*), as events experienced by their self (*Selbst*)—he who assumes this, and yet believes in addition that for these living minds immanent in God, he needs to prove an existence external to God, in order that they may be Real in the full meaning of the word, does not, it seems to us, know what he is about—he does not know that he already possesses the kernel whole and complete, and that what he painfully seeks is but the shell.

The result of these considerations admits of being differently expressed. If we continue to use the phraseology in accordance with which we designated Reality as the general affirmation which belongs to action as well as existence, then Realness is the special kind of reality which we attribute to or seek for things, as the points from which action sets out and in which it is consummated. This Realness has appeared to us as dependent upon the nature of that to which it is to belong; it is the being of that which *exists for self*. But we want the name *self-existence* in order to characterize in a more general way the nature of mentality, which only reaches its highest stage in the self-consciousness of the being that knows itself as an Ego (*Ich*), and is not, because of this being its highest stage, absent in the being which, though far removed from the clearness of such self-consciousness, yet in some duller form of feeling exists for itself and enjoys its existence. Hence to Realness in this sense we can attribute various degrees of intensity; we cannot say of everything that it is either altogether Real, or altogether not-Real; but beings, detaching themselves from the Infinite with varying wealth and unequal complexity of self-existence, are Real in different

degrees, while all continue to be immanent in the Infinite. Hence the distinction between Idealism and the standpoint which we have just taken up does not consist in this, that we ascribe to things a transcendental and hence Real existence, while Idealism ascribes to them only an immanent and hence merely apparent existence; rather there exists between the two *this* difference, that the idealistic view, convinced of the selflessness of things, on this account will not allow that they are more than states of the Infinite; while we, agreeing herewith in principle, leave undecided, as something which we cannot know, the question whether this assumption of selflessness is appropriate, holding, however, that it is far more likely to be *in*appropriate, and that all things really possess in different degrees of perfection that selfhood by which an immanent product of the Infinite becomes what we call Real.

§ 3. We seem now to some extent to have struggled upwards out of the helplessness to which we confessed at the beginning of this chapter. The nature of that which is Real is no longer so wholly unknown to us and so wholly incapable of being showed forth as it then seemed; we are no longer so completely limited to going round about it at a distance with purely formal abstract notions of Realness and unity and inner states of passion and action, without being able to make clear the living meaning of any of these notions by pointing to some well-known and pregnant intuition. To the nature of Mind, of the Ego that apprehends itself, that is passive in feeling and active in willing, and that is one in remembrance in which it brings past experiences together, we can now point as to a similitude of that which is the nature of beings endowed with Realness; or we may believe that directly and without any similitude we find the thing itself, the nature of all Realness in this living self-existence. I will leave undecided whether we are really free to choose between these two alternatives; in order to cut short the prolixity in which this consideration would involve us, we shall be satisfied to have it granted to us that at any rate there is

in mind the nature of a Real being, although the nature of things may not be made properly clear to us by the analogy of mental existence, but only imperfectly and figuratively illustrated by it.

But will even this be granted to us? Shall we not rather be met with the reproach that we have characterized as the original being of things that which, as a late and mediated result, most of all needed that we should show how it was put together out of more simple and more essential material? For are not ideation, feeling, volition, self-consciousness, events the possibility of which can only be understood by presupposing the nature of a Real unconscious being which in itself neither ideates, nor feels, nor wills, and assuming that this nature is stirred by numerous stimuli, and that from the reactions by which—in accordance with its unknown peculiarities—it responds to those excitations, the familiar phænomena of mental life are produced? Has not the more enlightened psychology of modern times devoted all its strength to this problem, partly with valuable results, partly, so far, without any results at all? Must not then this mental nature, this self-existence that we have here inconsiderately characterized as the essential nature of Realness, be rather understood and explained as one of the products arising from conditions which act upon the far more recondite nature of that which is properly Real and which is incapable of being intuited, and can only be held fast in the subtlest ontologic abstractions?

I may easily seem to be contradicting the greater part of what I have already said when I pronounce the undertaking here indicated to be a decided step into the perverse region of those investigations which seek to know by what machinery reality is manufactured, without considering that there cannot well be any machinery unless there has existed previously some reality, from the constituents of which, and according to the already valid laws of which, that machinery could be put together. We are tempted to take this step wherever our interest in investigation has been first

aroused by the varying values of certain fundamental phænomena or fundamental facts, for the alternating occurrence of which there must be different conditions that make now the one and now the other necessary. And if we have moreover had full opportunity to remark that even diverse phænomena, which on account of the difference of their content seem at first to be each something special in itself, are yet dependent on mere changes of magnitude of homogeneous conditions, we are likely to be seized by a sort of constructive passion from which nothing is safe, and which would end by deducing the whole positive content of real things—the place of which in the world we have to explain—from mere modifications of the formal conditions upon which the variations of those places depend. However, if this remark is to be of any use to us, I must try to illustrate it by reference to some examples which are not alien to our subject.

Our eye sees sometimes light and sometimes shade, and sees various colours one after the other. Now when the student has learnt that these changing sensations proceed from mathematical differences in the light waves, he generally becomes inclined to assert that colours *are* nothing whatever but different vibrations of ether; though he may perchance bethink himself at this stage of his scientific knowledge and admit that they do indeed *proceed* from those vibrations, but yet are in themselves something new and different, namely special states of psychical excitation in us. But now perhaps he learns in psychology that we have reason to regard even these qualitatively different impressions—indeed even those sensations of the different senses which differ so as to be incapable of comparison—as mere phænomenal forms, under which the soul becomes aware of a countless multitude of excitations, which qualitatively are quite homogeneous, and are only quantitatively or formally different; that perhaps to a sensation of colour as distinguished from the hearing of a musical note there corresponds only a more intense degree of disturbance, or one that takes place with a different rhythm in the succession of its individual nervous shocks, but that

this psychical disturbance or movement is always generically the same in both, and indeed in all cases of sensation. And having learnt this he easily grows accustomed to look down upon the many-coloured qualitative variety of mental phænomena with a certain feeling of superiority as a sort of juggle of which one has penetrated the secret; and this feeling is appropriately expressed thus:—Internal phænomena are not *actually* different from one another at all, they only appear to us to be different, being in truth mere formal modifications of one process which is everywhere in essentials the same.

I do not think that I present this perverse view in too glaring colours; it is a fact that many act as though they believed at the moment when they come to perceive this similarity of the origin of psychical processes, that their dissimilarity has ceased to exist; they forget altogether that it is the mode in which these supposed modifications of one homogeneous process appear to us, that is the very point with which we are concerned. If it were certain past a doubt that the sensations of light and those of sound depend upon two psychical disturbances which at most differ from each other only as quantitatively and formally as vibrations of ether from sound waves, yet the disparateness of these sensations, in as far as felt, is not thereby done away with, but lasts on afterwards just as it did before; their worth and their reality are not lessened by the fact that both sensations are but modes in which the processes referred to appear to us; these modes of appearance are, on the contrary, real permanent mental facts, of which those external facts of physical sense-stimulation or the psychical disturbances corresponding to them, are indeed the occasioning causes, but the nature of which is not determined by those causes, and the difference between which is not in the least diminished by the slighter degree of difference that exists between their causes. Or if we hear that feelings and stirrings of the will are really nothing more than manifold pressures and movements which ideas cause in one another by their reciprocal action, ought we to allow this "nothing more"? If we have made the dis-

covery that they are nothing more, does pain, on that account, cease to hurt, or can we root out from our consciousness the fact that a motion of our will is and remains, always and for ever, something totally different from a non-voluntary rise and subsidence of ideas? Such explanations even if correct teach us only the occasioning causes to which it is due that the characteristic content of mental events appears upon the stage of consciousness, they do not inform us as to the producing causes of this content; they teach us to know conditions upon the change of which depend alterations of the consequences attached to them, but the dependence of these alterations is regulated in such a peculiar manner that from a comparison of two values of the condition, no thinking can, without using other data as well, divine how that difference of the two results will appear which corresponds to the given difference of the two values of the condition. Hence as far as changing action depends upon altering conditions, so far (taking the sense we have indicated) has science in general, including psychology, to solve explanatory and constructive problems. It may seek out the occasioning conditions of the various forms of presentation in idea, and feeling and willing, and of the varying course of these changing events and the multiform products of their reciprocal action; but it cannot hope to make out, from any data, how it can happen at all that there can be ideas, feelings, and volitions, and that one inner state can influence another; still less may it believe that in the mere explanation of instrumental machinery it has reached the essential meaning of spiritual events, or apprehended that which actually and in truth they are, as contrasted with that which in direct inner experience they appear to us to be.

§ 4. I feel that my remarks so far have been devoted to blaming admitted errors, and that they have not had sufficient reference to the case before us. It may be unhesitatingly admitted that all explanation can but set forth the inner regularity of a *given* reality in its changing development, and cannot deduce back until it reaches either the simplest elements

of action, the combinations of which it investigates, or the original proportions between them, the consequences of which it tries to trace. But within the boundary lines thus drawn may we not yet find a constructive task? For the different fundamental phænomena of mental life are not, it may be said, given to us in experience as unconnected occurrences, each of which changes and develops according to its own law and in dependence on the alteration of conditions that are valid for it alone; on the contrary, they occur in our observation as states of beings, and indeed as all states of one being, or at least it is only when regarded as such that they have meaning and significance for us. And how it is that in one being the possibility of such various manifestations can exist, and can exist in such a way that some appear under some conditions and others under other conditions, is not self-evident, and we are justified in attempting to investigate the inner structure which this being must have in order that it may be mental; nothing being less admissible than to give out that this mental nature is to be recognised off-hand as being in general the original nature of the Real—as though the nature of mind involved no puzzle.

I still, however, hold to my opinion; only I understand the difficulty of refuting the prejudices opposed to it, because I am fully conscious of the power of those impulses which continually beguile men into such attempts. We have an ineradicable inclination to regard the laws which enable us to apprehend the development of any real being, *because* it develops thus and no otherwise, as precedent conditions on account of which it is constrained to develop thus; we have further an ineradicable inclination to regard the "contingent aspects," the analyses, the auxiliary notions and relations by which *we* succeed in *thinking* the connection between real things when they already exist, as actual machinery by means of which those things come to *exist;* and finally, we are specially inclined to reverence analogies to which we have become accustomed through intercourse with the world of sense as types of universal validity, to which all reality must

conform. From the first inclination arises the habit of speaking of a world of truths preceding the world of realities as something which by its very notion is earlier, an error of which I shall soon have occasion to speak more at length; the third inclination produces those materialistic conceptions of the world of mind to the refutation of which we decline to return again; from the second bias that we mentioned arises the mania for giving to that which is most real and most original a still more secure foundation constructed from its own consequences. How this is to be understood I will try to make clear with such means as I can here make use of.

We may say—not with exactitude, but as helping towards comprehension—that in all the notions of things—of their unity, their states, their passion and action—by which we introduce order and connection into our perceptions, what the mind in effect does is to copy the general features of its own nature, and because it feels that itself and its reality subsist and are contained in them, it seeks to transfer them to external reality too, and to work them into it, as the only characteristics of true existence which it knows. But in being thus transferred, these features lose the living content which they had in the mind's sense of self, and which the non-Ego, observable only from without, cannot be regarded by mind as possessing likewise; they are transformed in this transference to forms empty of content which do no more than preserve and express the modes of connection which both relate the manifold content of the mind to it, and relate the constituent parts of that content to one another. In self-consciousness experience of the Ego as the subject of mental life is so immediate that it brings with it also experience of what is meant by being such a subject; at present it is the fashion for knowledge to attenuate the living intuition of the Ego into the formal notion of a substance which in some way, not intelligible to us, renders to a manifold of external phænomena the same office of a subject by which the parts of that manifold are held together; remembrance, by which the soul really connects into one all-embracing consciousness its temporarily

separated experiences, fades into the formal notion of a unity with self, which in some way which we certainly cannot take in appertains even to those unconscious and selfless substances; notions of states and actions arise like empty shadows of the efficient volition, and painful suffering of living experience, and establish between the shadows of things many and various shadows of connections. And then the soul having in its intercourse with the world of sense become accustomed to the use of these abstractions, it turns, as it were, suicidally against itself, and imagines that it can comprehend its own nature only by help of these ontological notions which from the very beginning had significance only in as far as they were reflections—though pale and faint—of the mind's own nature. And finally, it reaches the point of no longer understanding its own self, and hits upon the device of enriching its nature by a core of unconscious substance with which in imagination it endows itself, and in which it tries to induce self-consciousness by an ingeniously devised system of stimulation.

That this must always happen, that there is in the very nature of the soul a craving which drives it to bring all reality, including its own life, under these forms, and to make it an object of reflection, is a fact which we do not deny, and to the inevitableness of which we have already referred (cf. i. p. 626); it is just here that we find the difficulties with which at this point we have to struggle. But it is possible, nevertheless, to be conscious that all those ontological notions are but products of thought, not conditions of the possibility of him who thinks or of that which is thought, are but aspects which truth wears to finite mind, and not the very form of truth itself; and this true state of the case forces itself upon us on different occasions with different degrees of clearness. Thus we happen perchance to say, *Our Ego possesses self-consciousness;* then struck by the perversity of making out that our very being is possessed by us, and that the most essential feature of our nature is a possession of that which is thus possessed, we amend our expression, and say, *I am a soul;* but even so we only veil the still unremoved perplexity;

we know now no more than we did before in what essential relations the subject, copula, and predicate of this judgment can stand to one another as long as they are thus distinguished. And we make up our minds to admit that it is vain to attempt to separate that which is one by expressing it in the form of a judgment, and then by recombining the parts to construct a unity which can only be known in direct intuition. But things will still go on as before, and the attempt will ever be renewed. Whenever we are considering some isolated action of any being, the rest of its nature appears as something constant from which the action proceeds; and continuing this process, we come at last to contrast the totality of its actions and properties with a permanent root from which they arise, and divide the being into—(1) something that is nothing, suffers nothing and does nothing; and (2) a host of qualities and actions which proceed from this something. Here, after some consideration, there is a division of views; some resolve beings into pure activity without anything that acts, while others in some incomprehensible way connect activity with something that is inactive; if we say to both, The thing which acts is itself the being, then this and every similar expression involves the error of regarding the article as indicating the true being which only participates in action. When upon the application of an external stimulus a sensation arises, it seems as though it, being a reaction of the soul, must have been preceded by some passion which calls it forth, and to which it corresponds; thus we come to imagine unconscious stirrings of the soul, impressions which are *succeeded* by sensation, as by an elastic rebound; on the other hand, we reflect that if the reaction is to proceed from the passion there must be *one* moment in which they are both coincident as an indivisible action; but if for *one* moment, why not for all? and why not admit that the distinction between excitation and reaction is a fiction of theory, as indispensable for many purposes of comparing and combining cognition, but in fact just as unreal as the movements along two sides of a parallelogram into which we arbitrarily analyse some given simple movement? When some

idea hinders or obscures in consciousness some other idea differing in content, and perhaps not capable of being compared with it, or when in external Nature two substances differing in appearance produce in one another movement or equilibrium, we draw the conclusion that both must, notwithstanding, have a hidden similarity in order that they may be able to act upon one another, and regard them as differing values of a homogeneous process or a homogeneous substance. But why not admit that their homogeneity consists in just that capacity of reciprocal action which belongs to them,—that is, that they are in truth only *equivalent*, and *not* homogeneous in the sense that they are really constituted by, or have arisen from, some one third thing,—and that this reduction of elements, qualitatively different but equivalent in working to different quantities of one identical substratum, is indeed a fiction that is very convenient for our calculations, but one that certainly needs a special proof of its essential truth if we are to accept it as valid?

It would be easy to multiply such examples; cognition everywhere seeks to make clear to itself the inner connection of the living nature of reality, by such analysis or reference to co-ordinates as it may find convenient—which afterwards it easily comes to regard as essential determinations of the being of things. The temptation to this is not equally great in all cases. Often the nature of the truth which applies to all reality admits of our reaching the same goal from different starting-points and by different roads, and then we easily convince ourselves that none of these roads is that taken by the thing itself and that the relation of the thing to the system of co-ordinates by the help of which we seek to determine it is a relation of indifference; in other cases—among which we must reckon those simplest and most general ontological notions of which we have been speaking—we have not such a choice, but are constrained always to return to the same modes of conceiving reality. And then these inevitably appear to us as conditions which not only make our knowledge of the thing possible, but make the thing

itself possible; and this is the case to such a degree that doubtless the conclusion of this long exposition of mine will be rewarded by the incredulous question, But how must it come to pass that minds can suffer these states and develop these reactions? This is once more the question that demands to know how reality is created; and we once more answer it by saying that it does not seem to us as though it must *come to pass* that this should *be possible*, but that minds *do* so suffer and react that considered in detail there is a process of the development of events one out of another, from point to point. We shall soon have occasion to return to this question; and we will defer until then the explanation of any obscurities which may yet remain in these considerations, the results of which we shall now try to formulate, in the same way as we have done the results previously reached.

§ 5. VII. The notions by means of which we seek to determine the nature and connection of things, make demands with regard to which on the one hand we cannot understand how things thought as selfless can set about fulfilling them, and of which on the other hand it is clear that the nature of things thought as it has hitherto been thought excludes their fulfilment. For anything that we could imagine as an accomplished and concretely intuitable fulfilment of these postulates —not merely a fulfilment demanded and indicated in abstract formulæ—is only possible in some mind, in virtue of the peculiar nature which distinguishes it from that which is not mind.

VIII If now that which we must require from things as the subjects of phænomena at the same time cannot be performed by them as long as they are things, then either things cannot exist, or they must exist otherwise than they have hitherto been thought to exist. Either only minds exist, and the whole world of things is a phænomenon in minds, or things which appear to us as permanent yet selfless points of departure, intersection, and termination of action, are beings which share with minds in various degrees the general characteristic of mentality, namely self-existence.

IX. The Realness of things and their self-existence are notions which have precisely the same significance. The meaning of this assertion is twofold. First, that a mind which continues immanent in the Infinite as a state, activity, or modification of it, directly that (notwithstanding this immanence) it exists for self, has in this very self-existence the fullest Realness, and does not obtain Realness by being detached from the Infinite and attaining the independence of an existence out of it; self-existence is the positive content of this independence for which we seek, the meaning of which becomes quite incomprehensible if it is regarded as some different kind of formal relation to the Infinite into which that which possesses self-existence has yet to enter. But our proposition asserts in the second place (and this second assertion is most intimately connected with the first) that Realness is not to be understood as a consequence attached to self-existence as something to be earned by it, and hence distinct from it. Even the expression, Mind is Real in virtue of its self-existence, has not in this reference the exactness which we would desire; for that *in virtue of* allows of the misinterpretation that Realness may depend upon certain general conditions, which mind may fulfil by its self-existence, but which something else, for instance selfless things, may fulfil in some other way. But there are no such conditions; there is no law precedent to all reality, according to the prescriptions of which Realness and not-Realness are distributed among all that is conceivable. It is only the living mind that is, and nothing is before it or external to it; but it exists in such a way that it can only make its own existence and action objects of reflection by giving to their manifold content a framework of abstractions, connections, and other auxiliary constructions by which that content is divided, combined, and systematized—and these easily come to appear to it as not merely conditions of its thought about itself, but as being also conditions of its reality.

## CHAPTER IV.

### THE PERSONALITY OF GOD.

Faith and Thought—Evidence of the Existence of God—Impersonal Forms of the Supreme Being—Ego and Non-Ego—Objections to the Possibility of the Personality of the Infinite—Summary.

§ 1. OUR exposition, which is now hastening to a conclusion, must, for brevity's sake, be allowed to omit the mention of middle terms so obvious as to be easily supplied by the reader. Our reflections hitherto have been busy about the nature of finite things and the possible modes of conceiving their reciprocal connection, but we have not spent much pains in attempting to elucidate the notion of that One Being which we have notwithstanding regarded as the indispensable presupposition of all intelligibility in finite things. The course of our investigation would now naturally lead us to this attempt; for however perseveringly we may have had to turn away from every expectation of an explanation as to how reality comes to exist, yet in the assertion of a dependence of the finite many upon the infinite One there is involved the assertion of a permanent relation of real to real; and to determine as far as possible the meaning of this relation is a task which we are bound to recognise as admissible. But it would not be useful here to carry on this investigation to further developments logically resulting from the purely metaphysical motives that have hitherto been its mainspring; we find such development of it already existing in the region of religious thought—a rich and full development, having a form which must attract our attention in a high degree for this very reason, that it seeks to satisfy the needs of the heart and the conscience as well as of speculative knowledge. To this familiar development we will turn and take as the object of

our reflection, not the metaphysical postulate of the Infinite, but instead of it the full and complete concept of the God who is to realize this postulate.

Here we must think, at least for a moment, of the doubt which may arise at this point, reminding us of the resultlessness of philosophic investigations concerning those ultimate questions which only the new and special faculty of Faith is competent to answer. Whatever may be thought concerning the origin of religious truths, the view taken will unquestionably leave something to be done by scientific cognition. If religion were a pure product of human reason, philosophy would be the only competent organ of its discovery and interpretation. If reason is not of itself capable of finding the highest truth, but on the contrary stands in need of a revelation which is either contained in some divine act of historic occurrence, or is continually repeated in men's hearts, still reason must be able to understand the revealed truth at least so far as to recognise in it the satisfying and convincing conclusion of those upward-soaring trains of thought which reason itself began, led by its own needs, but was not able to bring to an end. For all religious truth is a moral good not a mere object of curiosity. It may therefore include some mysteries inaccessible to reason, but will only do so in as far as these are indispensable in order to combine satisfactorily other and obvious points of great importance; the secrecy of any mystery is in itself no reason for venerating it; a secrecy that was permanent and in its nature eternal would only be a reason for indifference towards anything which should thus refuse to be brought into connection with mental needs; and finally, above all things, to revel in secrets which are destined to remain secrets is necessarily not in accord with the notion of a revelation.

But must that which is a secret for cognition be always really a secret? Does not the nature of faith consist in this, that it affords a certainty of that which no cognition can grasp, as well of *what* it is, as *that* it is? And does not all science itself, when it has finished its investigations of par-

ticulars, come back to grasp, in a faith of which the certainty is indemonstrable and yet irrefragable, those highest truths on which the evidence of other knowledge depends? There is certainly a germ of truth in this rejoinder; but not the less clear is the essential difference that separates such scientific faith from religious faith. It is only in universal propositions, which in innumerable conceivable cases indicate those modes of relating a manifold which occur under definite conditions, that scientific faith places immediate confidence. When it declares that everything which is thinkable is identical with itself, that similar things under similar conditions produce similar results, and under dissimilar conditions dissimilar results, and that every change is preceded by a cause—all these propositions are *universal* truths which tell us indeed what must necessarily happen or take place if any case in which they are applicable should arise, but tell us nothing whatever about the actual occurrence of something real. The essential truths of religion have all an opposite character; they are assurances of the *reality* of some being, or event, or series of events, assurances of a reality of which the content when it has once been recognised may certainly become indirectly a source of universal laws, but which in itself is not a law but a *fact*. Now those universal truths in which scientific cognition puts absolute faith, are at bottom but the very nature of cognizing reason itself, expressed in the form of principles of its procedure, and it is conceivable that reason, unable to escape from its own nature, may be overpowered by the evidence of these rules of thinking, which to it are inevitable. But not more than its own being can be known to the mind in immediate consciousness; it cannot have innate revelations of facts other than itself, however great and incomparable the value and significance of these facts may be.

Religious faith is comparable not to this immediate evidence of ultimate principles but to another element that co-operates in the construction of knowledge—namely to the *intuition* by which content is given to those principles, and by which those universal laws are supplied with cases to which they

may be applied. Even in sense perception we receive the content of sensations just as revelations which can only be accepted as they are; we have no reason, we have no need, we have no means to prove the reality of an impression of colour, nor has knowledge any conceivable task adapted to show how this colour should appear. It *is*, and *is as it is*, by immediate revelation which we can but receive. The same as we here experience under the influence of physical stimuli, we may experience from direct divine operation within our heart; thus faith would be an intuition of those supersensuous facts revealed to us by this operation. There is truth in this —more truth than in the previous comparison. But every sensuous impression regarded in itself is but a way in which we are affected, some phase of our own condition; in itself it gives no knowledge of any matter of fact, taken alone it constitutes no experience. Here again it is only our thought which, mastering the manifold revelations of sense, compares and combines them, or interprets given combinations, thus arriving through them at the knowledge of some fact. We can hardly picture to ourselves the workings of God upon the heart otherwise than after this pattern; we cannot imagine the recognition of any fact as something that can be simply communicated, something that reaches the mind ready made and without any activity on its part, we can only imagine that occasion can be given to the mind to, as it were, produce such recognition by exercising this activity, and in this it is that every appropriation of a truth must consist. As sense in itself furnishes merely an impression, so also this divine influence would produce merely a feeling, a mood, a mode of affection; what is thus experienced becomes a revelation only through some work of reflection which analyses its content and reduces it to coherence by clear notions that are capable of being combined with our ideas of the real world.

It will not always be possible for this to happen; much of this inner life of the believing heart must always remain purely subjective experience, and these incommunicable states will by no means contain only that which is of least value in

our faith ; on the contrary. that which is best and fairest and most fruitful in our experience will always be realized in us only in the shape of these living emotions which are superior to the forms of knowledge. It cannot be our business to interpret this wealth of inner experience—to interpret either that in it which transcends knowledge, or that which is too insignificant to become matter of knowledge. The only part that can hold our attention is that which is not only beheld by the individual in his rapture, but which every one can communicate to others, which is capable of becoming common property, and which, by arguments that all human reason must recognise, he can either prove as truth, or justify to faith as a convincing probability, by which formidable objections are refuted, and thus a possible solution furnished of problems that press upon us.

§ 2. Reason at one time tried to solve the essential part of this problem of interpreting and defending the content of faith by proofs of the existence of God. It would be unfair to reproach this form of procedure with the contradiction of trying to exhibit that which is highest and (by its own assumption) unconditioned, as being, notwithstanding the necessary and conditioned result of truths, the validity of which must—since they are to be accepted as grounds of proof—be earlier and more fundamental than the reality of that which is proved by them. Although this error has not always been avoided, yet these proofs—like all investigations which strive to go back from results to their causes—are only intended to mediate our *knowledge* of the principle by those of its consequences which are given, and with this view they presuppose the absolute validity of a truth which knits all the world together, and which allows of our divining the *notiora naturæ* from the *notiora nobis*. But the way in which the undertaking has been carried out seems to show that human insight has not received in sufficient completeness those data of reality which it needs in order that it may, under the guidance of general principles of reason, reach with exactitude and completeness the end to which it strains, and this even if we do

not reckon those chance wanderings by the way due to defective criticism of the desired end to which we were pressing on. We will now only take a brief retrospective view of this region of thought, to which previous reflections have already sufficiently introduced us.

The *Cosmological Proof* concludes from the contingent and conditioned character of everything in the world to the existence of a Necessary and Unconditioned Being, and it seems to it that nothing but an absolutely perfect being can be thus unconditioned. We call that *contingent* which in the realization of some intention occurs as an unintended and accessory result — occurs because the means which we must use, possess, besides the properties by which they serve our purpose, others which for our ends are indifferent or even obstructive—properties which, since they are there, cannot be prevented from having their own effect, as far as general laws permit. If we transfer the application of this word *contingent* to the course of Nature, attributing intentional design to that course as a coherent whole, then *contingent* signifies everything that is not part of Nature's plan, but only some unavoidable consequence of the means and laws by which Nature proceeds at every step. Hence the *contingent* being without end and aim, it has only grounds and causes by which it is produced in the coherent whole of reality; but as external to this whole, neither being nor action considered in themselves can be either contingent or necessary. For that which in such case would be signified by the name contingent—existence which might be non-existent or might be other than it is—is not a special and more imperfect kind of existence, in contrast to which some other and better kind might be imagined, but any part of reality, considered as detached from the rest, is contingent simply in the sense that its non-existence, or its existence otherwise than as it is, is conceivable. There is nothing which is necessary and of which the non-existence is impossible, except the conditioned, which as consequent is determined by some antecedent, as an effect by some cause, and as a means by its end; but the notion of

a being isolated and conditioned by nothing, and yet possessed of necessary existence, is wholly impossible. If, therefore, contingency is so often rejected as belonging to the ultimate reason of the universe and necessity so eagerly claimed for it, this happens because both expressions, having lost their speculative meaning, have come to be used as determinations of value. Taken thus, *contingent* connotes that which does indeed exist, but has not any significance, for the sake of which it need exist; *necessary* connotes something not that must be but that has such unconditional value that it seems in virtue of this value to deserve also unconditional existence. Only in such a sense can it be required that the Supreme Principle of the universe should be necessary. But to demand that God should be represented not only as really existent, but as being obliged to exist, would be wholly erroneous and involve a confusion of notions. All religious needs would be perfectly satisfied by proof of His reality; to wish to prove His necessity, would not only be to exaggerate our demands in a wholly useless manner, but would in fact also lead to the contradiction of conceiving God as dependent upon some being superior to Himself, and containing the constraining cause of His existence.

The other part of the Cosmological Proof also gives occasion for similar remarks. Perfection is an unequivocal predicate only when it denotes agreement between the nature of an object and some standard to which that nature ought to conform. Hence it is only failure to accomplish that which is due which is imperfection, but a thing is not imperfect because we do not find in it some merely conceivable excellence. That we do yet in such a case speak of imperfection, proceeds from the fact that the word perfection has also lost its speculative meaning of conformity to a standard, and has become an independent designation of that which is directly commendable, and worthy in itself. Now if a thing does not fulfil the obligations of its own nature, we may perhaps have reason to assume that it has been restrained by some foreign power from the attainment of that to which it was destined; but the

mere absence of some conceivable beauty or excellence does not show that that which in this sense is imperfect is either dependent or conditioned. For, in fact, unconditioned existence may belong to that which is indifferent and petty as well as to that which is significant and great, and is not the exclusive privilege of that which is most excellent.

Thus then the Cosmological Proof could only conclude from the conditionalness and conditioned necessity of all individual real things in the universe, to an ultimate Real Being which, without being conditioned by anything else, simply is, and simply is what it is, and finally may be regarded as the sufficient reason through which all individual reality is, and is what it is. And this way of looking at the proof clearly shows that it cannot of itself attain to the religious conception of a God, but only to the metaphysical conception of an Unconditioned. And it is not even able to establish the unity of this Unconditioned. It is indeed possible that at a further stage of development the demand for unconditionalness may be found to have connected with it a demand for unity too; but this connection has not been discovered by the proof which we are considering, and hence it does not refute the assumption of an indefinite plurality of cosmic beginnings, of a plurality of unconditioned Real beings, in which, on the other hand, students of Nature may hope to find an explanation of the multiplicity of phænomena more easily than in the unity of the Supreme Principle.

The *Teleologic Proof* seeks to attain certainty of the reality of God from the purposiveness in the world. In order to be convincing, it would have strictly to fulfil several requirements with regard to which we have long ago seen that it can satisfy them only with various degrees of probability. It would *first* have to show that there is in the world a purposive connection which *cannot* result from an undesigned co-operation of forces, but must have been designed by some intelligence. But we have seen that even conscious design can effect the realization of its purpose only by means of instruments, from certain conjunctions of which that which is desired

proceeds as a necessary result; and that even the conjunction of instruments for this result is only possible when the conjoining design works also upon each of them with a blind force, which in accordance with general laws is able to move it in the way necessary to bring it into such conjunction with the rest. Hence though it may be in a high degree improbable it yet remains possible that a course of Nature destitute of design may of itself have taken all the steps, which in order to realize a purpose must have been taken under the guidance of design; and therefore this first requirement cannot be fulfilled.

And we do not succeed better in fulfilling the *second* requirement—in showing that purposiveness does not occur merely here and there but that it pervades the whole world harmoniously and without exception, so that not merely do intelligent actions occur in it, but the whole is embraced in the unity of one supreme design. How little does our actual experience suffice to show this! How much seems to us wholly inexplicable, purposeless, even obstructive to ends of which we had assumed the existence! The few brilliant examples of a harmony that we can at least partly recognise, which are presented principally by the animate creation, may well confirm an already existent faith in God, in the conviction that in that also which we do not yet understand the unity of the same wisdom may work purposively; but empiric knowledge of the purpose in the world does not furnish the means necessary for enabling any one to attain indisputable faith who does not yet possess it. Taken alone it would much more easily produce the polytheistic intuition of a plurality of divine beings, each of which rules over a special department of Nature as its special genius, and the varying governments of which agree so far as to attain a certain general compatibility, but not a harmony that is altogether without exceptions.

Not merely the defectiveness of the scientific knowledge which we have through experience but also internal difficulties hinder the fulfilment of the *third* requirement—that, namely, of showing that creative wisdom in carrying out its designs never experiences opposition, and is never forced to produce

that which is even only indifferent as regards its purposes; but only if this were so would wisdom be omnipotent. Not merely, however, does observation show us much which at least our limited knowledge can understand only as an accidental and accessory effect of the struggle between a formative design and the independent and resisting nature of the material to be formed; but, moreover, general reflection cannot get clear the notion of design without contrasting with it some material independent of it by elaborating which it attains realization; and thus all our consideration of purpose leads us only to the notion of a governor of the universe and not to that of a creator, which was what we sought.

Finally, how little men have succeeded in fulfilling the *fourth* requirement, and in proving the unconditional worth and the sacredness of the designs which we plainly see pursued in the world, is taught by a glance at the development of the doctrines which attempt this proof. For has not philosophy often pointed out to us as supreme and unconditionally sacred cosmic ends much in which living feeling can find no worth at all? Have not popular faith and dogmatic theology found cause in the ills of the world, and the logical consistency with which evil develops, to divide the dominion of the world between God and the devil, taking comfort in the thought that even of this apparent discord there may be some explanation inaccessible to human reason? But though that which is inaccessible to human reason may indeed be an object of faith, it cannot furnish any proof that such faith is true; and thus the Teleological Proof is destitute of all demonstrative force, however great and unmistakeable may be the efficacy with which it brings together for the strengthening of faith all that is best in secular knowledge.

Perhaps, if we were to ask less, we should on the whole obtain more, and the fundamental thoughts which animate these proofs may be not incapable of being turned to account in another way. The Cosmological Proof prematurely pushed its demand for the full and complete concept of God into an assertion of the supreme perfection of the unconditioned, not

having as yet established the unity of that unconditioned. This it could have done if it had considered more searchingly what is involved in the thought of the conditioned existence of things, in the thought of any ordered course of the world. Not the purpose in the world, for this is subject to doubt, but the fact that there is a cosmic course in which events are connected according to laws, must have led it to the necessary unity of that which is the substantial basis of the world. But we will not now return to this consideration, which we discussed at an earlier stage, and to which we also devoted the beginning of this last division of our inquiry. We found—so we thought—the impossibility of that pluralistic theory of the world which presupposes a plurality of original Real beings, independent of one another, and then imagines that from the reciprocal actions of these according to general laws, a cosmic order may be produced. If it had really considered deeply what is meant by saying that *one* truth holds of *many things*, and that for the many, of which each at first existed in a world of its own, there is yet the possibility of a community, in which these may act upon one another, it would have found that both these conceptions are unthinkable without an original unity of existence of all that is real—the activity of this reality, after it works and whilst it works, being capable of appearing as action which in an orderly fashion is bound together by one universal truth, and produced by connections between the separate elements. This unity of that which while unconditioned conditions all finite things, having been established, it became permissible to try and determine the notion thus obtained—the notion of an Infinite Substance—by those more significant predicates by which it was transformed into the notion of a living God.

What the Teleologic Proof has attempted to contribute here, seems to me to have been more impressively stated in the despised form of the *Ontologic Proof*, though it is true that in the scholastic form given to this proof not much of what I have referred to is to be recognised. To conclude that because the notion of a most perfect Being includes reality as

one of its perfections, therefore a most perfect Being necessarily *exists*, is so obviously to conclude falsely, that after Kant's incisive refutation any attempt to defend such reasoning would be useless. Anselm, in his more free and spontaneous reflection, has here and there touched the thought that the greatest which we can think, if we think it as *only* thought, is less than the same greatest if we think it as existent. It is not possible that from this reflection either any one should develop a logically cogent proof, but the way in which it is put seems to reveal another fundamental thought which is seeking for expression. For what would it matter if that which is thought as most perfect were, as thought, less than the least reality? Why should this thought disturb us? Plainly for this reason, that it is an immediate certainty that what is greatest, most beautiful, most worthy is not a mere thought, but must be a reality, because it would be intolerable to believe of our ideal that it is an idea produced by the action of thought but having no existence, no power, and no validity in the world of reality. We do not from the perfection of that which is perfect immediately deduce its reality as a logical consequence; but without the circumlocution of a deduction we directly feel the impossibility of its non-existence, and all semblance of syllogistic proof only serves to make more clear the directness of this certainty. If what is greatest did not *exist*, then what is *greatest* would not be, and it is impossible that that which is the greatest of all conceivable things should *not* be.

Many other attempts may be made to exhibit the internal necessity of this conviction as logically demonstrable; but all of them must fail. We cannot prove by thought, we can only know by experience, that anything endowed with beauty is beautiful, or that any disposition of mind has the approval of conscience—except in those easily intelligible cases in which, taking something compound, derived, or as yet obscure, to which those determinations of worth had already been attached by immediate feeling, we bring it under some universal by a brief logical process of analysis. And just as little can we prove from any general logical truth our right to

ascribe to that which has such worth its claim to reality; on the contrary, the certainty of this claim belongs to those inner experiences, to which, as to the given object of its labour, the mediating, inferring, and limiting activity of cognition refers. As such an immediate certainty, this conviction lies at the foundation of the Ontological Proof; and it too it is which carries the Teleologic Proof far beyond the inferences which could be reached by means of its own impracticable assumptions. For when once the dominion of significant moral forces that operate purposively has been confirmed by experience, though over but a small portion of the world, the silent enlargement of this experience into an assertion that there is a wisdom, a beauty, a goodness, and a perfection that pervade the whole world without exception, rests in this case not merely on the common logical mistake of a generalization of some truth proved to be valid in a particular case, but is supported by the living feeling that to this, which is greatest and most perfect, there belongs a perfect and all-embracing reality.

Lively as this conviction may be, and sufficient as its certainty may be for us, yet it shares the formal indeterminateness which attaches to all the inner experiences of faith. For it leaves us in doubt as to what the reality is which that which is highest and most worthy must possess; it believes only that it knows that this highest and best must be one with the Infinite which speculative philosophy found itself bound to recognise as the true reality. The reasons which justify this attempt to blend the Existent and the Worthy into the notion of the living God belong to those intermediate links of the course of thought which we may fairly skip, and this all the more because the following consideration of that to which the attempt has led will include our opinion as to the right and wrong of that attempt.

§ 3. Two distinct series of attributes through which man tries to comprehend the being of God recall to us the two impulses from which arose the notion of God and belief in Him. Metaphysical attributes of Unity, Eternity, Omnipresence, and Omnipotence determine Him as the ground of all finite

reality; ethical attributes of Wisdom, Justice, and Holiness satisfy our longing to find in that which has supreme reality, supreme worth also. We have no need to give a complete account of these attributes or to touch doubtful questions as to their reciprocal limits; the only really important point for us is to reach a conviction as to the mode of existence that is to give a definite form to this essence of all perfection, determining also at the same time the special significance of several of the attributes referred to. If these reflections, which are now struggling to a conclusion, were allowed once more to run into the prolixity of systematic completeness, it would be easy to develop from the preceding investigations as to the nature of existence the answer which we should have to give to this last question as to the nature of that Infinite which we have there discovered But just because it is easy for the reader to supply this transition we will regard the goal to which it would lead, the notion of a Personal God, as being already reached, and endeavour to defend this against doubts as to its possibility, as being the only logical conclusion to which our considerations could come.

The longing of the soul to apprehend as reality the Highest Good which it is able to feel, cannot be satisfied by or even consider any form of the existence of that Good except Personality. So strong is its conviction that some living Ego, possessing and enjoying Self, is the inevitable presupposition and the only possible source and abode of all goodness and all good things, so filled is it with unspoken contempt for all existence that is apparently lifeless, that we always find the myth-constructing beginnings of religion busied in transforming natural to spiritual reality; but never find them actuated by any desire to trace back living spiritual activity to unintelligent Realness as to a firmer foundation. From this right path the progressive development of reflection turned off for a time. With increasing cosmic knowledge, it grew more clear what must be required in the notion of God, if He were not only to contain in Himself all that is greatest and most worthy, but also to contain it after such a fashion as to appear at the same

time as the creative and formative ground of all reality; and on the other hand, in more refined observation of spiritual life, the conditions became clear to which in us finite beings the development of personality is attached; both trains of thought seemed to combine in showing that the form of spiritual life is incompatible with the notion of the Supreme Being, or that the form of personal existence is incompatible with the notion of the Infinite Spirit. And there arose attempts to find more satisfying forms of existence for the Highest Good in ideas of an Eternal World-Order, of an Infinite Substance, of a Self-developing Idea, and to depreciate the form of personal existence which had previously seemed to the unsophisticated mind to be the only one that was worthy. Among the infinitely manifold variations which these views have experienced we will content ourselves with briefly showing, of the three we have mentioned, the grounds of their untenableness.

What noble motives and what moral earnestness may lead to the dissolving of the notion of the Divine Being in that of a Moral World-Order, as contrasted with crude anthropomorphism, must be still fresh in men's remembrance. And yet Fichte was not right when, with inspired words, he opposed his own sublime conception to the common narrow-minded idea of a Personal God; because he sought that which was most sublime, he thought that he had found it in the conception which he reached; if he had followed out to the end the path which he took, he would have recognised that by it that which he sought could not be reached. The question, *How* is it that a World-Order can be conceived as the Supreme Principle? cannot he put off by appealing to the fact that we cannot demand a history of the origin of the Principle itself; he who, regarding Personality as an impossible conception of the Godhead, prefers some other to it, will at least have to show that the one which he brings forward is not contradictory; for nothing will be gained by substituting for an impossibility some other assumption of which the possibility is not proven. Now the fact is that the one sufficient reason which will always forbid that some World-Order should be put in the

place of God, is to be found in the simple fact that no order is separable from the ordered material in which it is realized, still less can precede such material as a conditioning or creative force; the order must ever be a relation of something which exists, after or during its existence. Hence if it is nothing but *Order*, as its name says, it is never *that which orders*, which is what we seek, and which the ordinary notion of God (however inadequate in other respects) determined rightly at any rate in this, that it regarded it as a Real being, not as a relation.

But in considerations concerning these highest things, which often make us feel the defectiveness of human language, names seldom mean exactly what they connote, but generally more or less; only it mostly happens that what we have to add or to omit cannot without contradiction be combined with or subtracted from that part of the signification which is retained. For this reason all the manifold views which we here group together will complain of our interpretation of their proposition, *God Himself is the Order of the world*, as being a misinterpretation.—In the first place, the World-Order can *not* take up that position with regard to the world, which, according to the common view, is occupied by the extra-mundane God; this position must remain empty, seeing that it is an impossible place, which nothing could occupy. Again, it will be said, to understand Order merely as a relation established by some ordering being, would only betray an incapacity to understand the true reality, which, through and through, without any residuum of dead substance is living activity, movement, and growth, not indeed indeterminate, but determining itself in unvarying consistency to the coherence of one thought. But yet if we more clearly analyse these enthusiastic ideas, must they not, if they are to mean what they are intended to mean, return again to that which they avoid? We have already had occasion to argue how little possible it is by the notion of a law of Nature regulating mere phænomena to avoid the assumption of reciprocal action between things, or to explain their apparent effects: even if

what is meant by saying that a law *commands* were clear, it would still be incomprehensible how things or phænomena should *obey* it; only an essential unity of all existent things could cause the states of one thing to be efficient conditions of the changes of another. On the universal World-Order which, claiming to govern the moral world also, takes the place of that law, we must pass a similar verdict. To us, too, it is not doubtful "but most certain, and indeed the ground of all other certainty, that there is this Moral Order of the world; that for every intelligent creature there is an appointed place and a work which he is expected to perform, and that every circumstance of his lot is part of a plan, in independence of which not a hair of his head can be harmed, nor (in another sphere of action) a sparrow fall from the house-top; that every good action will succeed and every evil action certainly fail, and that to those who do but truly love that which is good all things shall work together for good." (Fichte, *Sämmtliche Werke*, v. p. 188.) But now how can all this be thought? Or more accurately, When we think this, what is it that we think? Could that World-Order ever bring together any plurality to the unity of any definite relation or maintain such a unity, if it were not at the same time present in each individual of the plurality and sensitive to every state occurring in all the other individuals, and capable also of bringing the reciprocal relations of all into the intended form, by an alteration of position determined by reference to their remoteness from the point aimed at? This is no sophistical construction by which we would attempt to show how this Order comes to exist, but it is an analysis of that which we must think, if we would think that which is ascribed to this Order. And now, after all our detailed discussions on this point, we cannot say exactly how this notion of an Order which is affected by facts, and by reaction correspondent to its nature and affection alters facts, is to be distinguished from the true notion of a being. But on this account to call it simply *Order* is the mistake of an opposition which, shunning erroneous conceptions of being, obstinately tries to attach

those juster conceptions of which it is itself possessed, to a notion with which they are wholly incapable of being combined.

Now if the notion of any active order necessarily and inevitably leads back to that of an Ordering Being, the notion of a Moral Order leads further. Is it possible to imagine a Being which, stimulated by the influence of every existing condition of the cosmic course, should, with purposeless and blindly working activity, impart to that course the ameliorating impulses by which the thoroughgoing dominion of what is good is established,—a Being which cannot consciously indicate the place of each individual and appoint his work, or distinguish what is good in a good action from what is bad in a bad action, or will and realize the good with its own living love, but yet acts *as though* it could do all this? It is not open to speculation to decline answering this question, for every view must take account of the necessary points of connection, without which its own meaning would be incomplete; but whoever should seek to answer it by imagining an unconscious, blind, impersonal mechanism, of which yet goodness should be the moving spring, would entangle himself profoundly in those impracticable subtleties among which the great mind whose error we here deplore, thought he must reckon the conviction that Personality is the only conceivable form of the Supreme Cause of the universe. Whether the answering of this question is equally necessary for practical life may seem doubtful; but I believe that it is so. The conviction that there is a World-Order may suffice to guide our conduct and to comfort us concerning its apparent resultlessness; but the religious mind is led to apprehend the Supreme Good under the form of a Personal God both by humility and by the longing to be able to reverence and love, motives which the religion of a mere strict fulfilment of duty has too little regarded.

We cannot consider the remaining views in even as much detail as we have those above referred to. The common admission of substantial unity in the World's-Cause, connects

us only apparently with the reverence of Pantheism for the one Infinite Substance; and, moreover, the conceptions which we have formed concerning the meaning of the Real have removed us so far from the circles of thought in which Pantheism moves, that it is not possible to give a brief explanation of our relation to it. It regards as existent being what we can conceive only as phænomenal—the spatial world, with its extension, the figures which it contains and its unceasing movements; it regards it as conceivable that an inexhaustible vital force of the Unconditioned and the One should find relief in manifesting itself in these extended figures and their changes as though in so doing it really accomplished something; but for us all this was but the shadow of true and supersensuous being and action; hence Pantheism might think it possible to understand the spiritual world as an isolated blossom, growing from the strong stem of material Realness that works unconsciously, but to us it seems inconceivable that spirit should arise from that which is not spirit, and inevitable that all unconscious existence and action should be regarded as an appearance, the form and content of which springs from the nature of spiritual life. From a metaphysical point of view, we could only agree with Pantheism as a possible conception of the world if it renounced all inclination to apprehend the Infinite Real under any other than a spiritual form; from a religious point of view, we cannot share the disposition which commonly governs the pantheistic imagination—the suppression of all that is finite in favour of the Infinite, the inclination to regard all that is of value to the living soul as transitory, empty, and frail in comparison of the majesty of the One, upon whose formal properties of immensity, unity, eternity, and inexhaustible fulness it concentrates all its reverence. But this as well as the reason which holds us back from seeing that which is highest in the universe in an infinite and self-conscious Idea, we shall notice later—as far as it is possible to give a mere passing consideration to subjects that have been so endlessly discussed.

§ 4. An Ego (or Self, *Ich*) is not thinkable without the contrast of a Non-Ego or Not-Self; hence personal existence cannot be asserted of God without bringing even Him down to that state of limitation, of being conditioned by something not Himself, which is repugnant to Him.—The objections that speculative knowledge makes to the personality of God fall back upon this thought; in order to estimate their importance, we shall have to test the apparently clear content of the proposition which they take as their point of departure. For unambiguous it is not; it may be intended to assert that what the term Ego denotes can be comprehended in reflective analysis only by reference to the Non-Ego; it may also mean that it is not conceivable that this content of the Ego should be experienced without that contrasted Non-Ego being experienced at the same time; finally, it may point to the existence and active influence of a Non-Ego as the condition without which the being upon which this influence works could not be an Ego.

The relations which we need in ideation for making clear the object ideated, are not in a general way decisive as to its nature; they are not conditions of the possibility of the thing as they are for us conditions of the possibility of its presentation in idea. But the special nature of the case before us seems to involve something which is not generally included—for it is just in the act of ideation that Selfhood (*Ichheit*) consists, and hence what is necessary for carrying out such an act is at the same time a condition of the thing. Hence the first two interpretations which we gave of the proposition referred to seem to run together into the assertion that the Ego has significance only as contrasted with the Non-Ego, and can be experienced only in such contrast. Whether we agree with this assertion will depend in part upon the significance attached to the words used. We see in the first place that at any rate Ego and Non-Ego cannot be two notions of which each owes its whole content only to its contrast with the other; if this were so they would both remain without content, and if neither of them apart from the contrast had a

fixed meaning of its own, not only would there be no ground for giving an answer one way or the other to the question which of the two members of the contrast should take the place of the Ego and which that of the Non-Ego, but the very question would cease to have any meaning. Language has given to the Ego alone its own independent name, to the Non-Ego only the negative determination which excludes the Ego without indicating any positive content of its own. Hence every being which is destined to take the part of the Ego when the contrast has arisen, must have the ground of its determination in that nature which it had *previous to* the contrast, although before the existence of the contrast it is not yet entitled to the predicate which in that contrast comes to belong to it. Now if this is to remain the meaning of the term, if the being is to be Ego only at the moment when it is distinguished from the Non-Ego, then we have no objection to make to this mode of expression, but we shall alter our own. For it is our opponents' opinion and not ours that personality is to be found exclusively where, in ideation (or presentation), Self-consciousness sets itself as Ego in opposition to the Non-Ego; in order to establish the selfhood (*Selbstheit*) which we primarily seek, that nature is sufficient in virtue of which, when the contrast does arise, the being becomes an Ego, and it is sufficient even before the appearance of the contrast. Every feeling of pleasure or of dislike, every kind of self-enjoyment (*Selbstgenuss*), does in our view contain the primary basis of personality, that immediate self-existence which all later developments of self-consciousness may indeed make plainer to thought by contrasts and comparisons, thus also intensifying its value, but which is not in the first place produced by them. It may be that only the being who in thought contrasts with himself a Non-Ego from which he also distinguishes himself, can say *I* (*Ich*) to himself, but yet in order that in thus distinguishing he should not mistake and confound himself with the Non-Ego, this discriminating thought of his must be guided by a certainty of self which is immediately experienced, by a self-existence which is earlier than the discriminative relation by

which it becomes Ego as opposed to the Non-Ego. A different consideration has already (cf. i., pp. 241 *seq.*) led us by an easier path to the same result, and we may refer the reader to this passage for explanation and completion of what is said here. The discussion referred to showed us that all self-consciousness rests upon the foundation of direct sense of self which can by no means arise from becoming aware of a contrast with the external world, but is itself the reason that this contrast can be felt as unique, as not comparable to any other distinction between two objects. Self-consciousness is only the subsequent endeavour to analyse with the resources of cognition this experienced fact—to frame in thought a picture of the Ego that in cognition apprehends itself with the most vivid feeling, and in this manner to place it artificially among the objects of our consideration, to which it does not really belong. So we take up our position with regard to the first two interpretations of the proposition of which we are speaking, thus:—We admit that the Ego *is thinkable* only in relation to the Non-Ego, but we add that it *may be experienced* previous to and out of every such relation, and that to this is due the possibility of its subsequently becoming thinkable in that relation.

But it is not these two interpretations but the third that is most obstructive to that faith in the Personality of God which we are seeking to establish. In one form indeed in which it sometimes occurs we need not make it an object of renewed investigation; for we may now consider it as, in our view, established that no being in the nature of which self-existence was not given as primary and underived, could be endowed with selfhood by any mechanism of favouring circumstances however wonderful. Hence we may pass over in complete silence all those attempts which think to show by ill-chosen analogies from the world of sense how in a being as yet selfless an activity originally directed entirely outwards is, by the resistance opposed to it by the Not-Ego (comparable to that which a ray of light encounters in a plane surface), thrown back upon itself and thereby transformed into the

self-comprehending light of self-consciousness. In such ideas everything is arbitrary, and not a single feature of the image employed is applicable to the actual case which it is intended to make clear; that outgoing activity is an unmeaning imagination, the resistance which it is to meet with is something that cannot be proved, the inference that that activity is by that resistance turned back along the path by which it came is unfounded, and it is wholly incomprehensible how this reflection could transform its nature, so that from blind activity it should turn into the selfhood of *self-existence.*

Setting aside these follies which have influenced philosophic thought to an unreasonable extent, we find a more respectable form of the view which we are combating occupied in proving that though that self-existence cannot be produced by any external condition in a being to which it does not belong by nature, yet it could never be developed even in one whose nature is capable of it, without the co-operation and educative influences of an external world. For that from the impressions which we must receive from the external world, there comes to us not only all the content of our ideas, but also the occasion of all those feelings in which the Ego, existing for self, can enjoy self without as yet being conscious of a relation of contrast to the Non-Ego. That all feeling must be conceived as (in some definite form of pleasure or displeasure) interested in some definite situation of the being to which it belongs, some particular phase of its action and its passion; but that neither is passion possible without some foreign impression which calls it forth, nor activity possible without an external point of attraction which guides it and at which it aims. That in any single feeling the being which is self-existent is only partially self-possessing; that whether it has self-existence truly and completely depends upon the variety of the external impulses which stimulate by degrees the whole wealth of its nature, making this wealth matter of self-enjoyment—that thus the development of all personality is bound up with the existence and influence of an external world and the variety and succession of those

influences; and that such development would be possible even for God only under similar conditions.

It is not sufficient to lessen the weight of this objection by the assertion that this educative stimulation is necessary only for finite and changing beings, and not for the nature of God, which, as a self-cognisant Idea, eternally unchangeable, always possesses its whole content simultaneously. Though this assertion grazes the truth, yet in this form it would be injurious in another respect to our idea of God, for it would make the being of God similar to that of an eternal truth—a truth indeed not merely valid but also conscious of itself. But we have a direct feeling of the wide difference there is between this personification of a thought and living personality; not only do we find art tedious when it expects us to admire allegorical statues of Justice or of Love, but even speculation rouses our opposition forthwith, when it offers to us some self-cognisant Principle of Identity, or some self-conscious Idea of Good, as completely expressing personality. Either of these are obviously lacking in an essential condition of all true reality in the capacity of *suffering*. Every Idea by which in reproductive cognition we seek to exhaust the nature of some being, is and remains nothing more than the statement of a thought-formula by which we fix, as an aid to reflection, the inner connection between the living activities of the Real; the real thing itself is that which applies this Idea to itself, which feels contradiction to it as disturbance of itself, and wills and attempts as its own endeavour the realization of the Idea. The only living subject of personality is this inner core, which cannot be resolved into thoughts, the meaning and significance of which we know in the immediate experience of our mental life, and which we always misunderstand when we seek to construe it—hence personality can never belong to any unchangeably valid truth, but only to something which changes, suffers, and reacts. We will only briefly point out in passing the insurmountable difficulties which the attempt to personify Ideas thus would encounter if there were any question of determin-

ing the relation between the Ideas so personified and the changing course of the world; it would immediately appear that these could as little do without the additions necessary to transform them into suffering and acting beings as the World-Order to which we have before referred.

Yet the transference of the conditions of finite personality to the personality of the Infinite is not justified. For we must guard ourselves against seeking in the alien nature of the external world, in the fact that it is *Non*-Ego, the source of the strength with which it calls out the development of the Ego; it operates only by bringing to the finite mind stimuli which occasion the activity, which that mind cannot produce from its own nature. It is involved in the notion of a finite being that it has its definite place in the whole, and thus that it is not what any other is, and yet that at the same time it must as a member of the whole in its whole development be related to and must harmonize with that other. Even for the finite being the forms of its activity flow from its own inner nature, and neither the content of its sensations nor its feelings, nor the peculiarity of any other of its manifestations, is given to it from without; but the incitements of its action certainly all come to it from that external world, to which, in consequence of the finiteness of its nature, it is related as a part, having the place, time, and character of its development marked out by the determining whole. The same consideration does not hold of the Infinite Being that comprehends in itself all that is finite and is the cause of its nature and reality; this Infinite Being does not need—as we sometimes, with a strange perversion of the right point of view, think—that its life should be called forth by external stimuli, but from the beginning its concept is without that deficiency which seems to us to make such stimuli necessary for the finite being, and its active efficacy thinkable. The Infinite Being, not bound by any obligation to agree in any way with something not itself, will, with perfect self-sufficingness, possess in its own nature the causes of every step forward in the development of its life. An analogy which

though weak yet holds in some important points and is to some extent an example of the thing itself, is furnished to us by the course of memory in the finite mind. The world of our ideas, though certainly called into existence at first by external impressions, spreads out into a stream which, without any fresh stimulation from the external world, produces plenty that is new by the continuous action and reaction of its own movements, and carries out in works of imagination, in the results reached by reflection, and in the conflicts of passion, a great amount of living development—as much, that is, as can be reached by the nature of a finite being without incessantly renewed orientation, by action and reaction with the whole in which it is comprehended; hence the removal of these limits of finiteness does not involve the removal of any producing condition of personality which is not compensated for by the self-sufficingness of the Infinite, but that which is only approximately possible for the finite mind, the conditioning of its life by itself, takes place without limit in God, and no contrast of an external world is necessary for Him.

Of course there remains the question what it is that in God corresponds to the primary impulse which the train of ideas in a finite mind receives from the external world? But the very question involves the answer. For when through the impulse received from without there is imparted to the inner life of the mind an initiatory movement which it subsequently carries on by its own strength, whence comes the movement in the external world which makes it capable of giving that impulse? A brief consideration will suffice to convince us that our theory of the cosmos, whatever it may be, must somehow and somewhere recognise the actual movement itself as an originally given reality, and can never succeed in extracting it from rest. And this indication may suffice for the present, since we wish here to avoid increasing our present difficulties by entering upon the question as to the nature of time. When we characterize the inner life of the Personal God, the current of His thoughts, His feelings, and His will, as everlasting and without beginning, as having never

known rest, and having never been roused to movement from some state of quiescence, we call upon imagination to perform a task no other and no greater than that which is required from it by every materialistic or pantheistic view. Without an eternal uncaused movement of the World-Substance, or the assumption of definite initial movements of the countless world-atoms, movements which have to be simply recognised and accepted, neither materialistic nor pantheistic views could attain to any explanation of the existing cosmic course, and all parties will be at last driven to the conviction that the splitting up of reality into a quiescent being and a movement which subsequently takes hold of it, is one of those fictions which, while they are of some use in the ordinary business of reflection, betray their total inadmissibility as soon as we attempt to rise above the reciprocal connection of cosmic particulars to our first notions of the cosmos as a whole.

The ordinary doubts as to the possibility of the personal existence of the Infinite have not made us waver in our conviction. But in seeking to refute them, we have had the feeling that we were occupying a standpoint which could only be regarded as resulting from the strangest perversion of all natural relations. The course of development of philosophic thought has put us who live in this age in the position of being obliged to show that the conditions of personality which we meet with in finite things, are not lacking to the Infinite; whereas the natural concatenation of the matter under discussion would lead us to show that of the full personality which is possible only for the Infinite a feeble reflection is given also to the finite; for the characteristics peculiar to the finite are not producing conditions of self-existence, but obstacles to its unconditioned development, although we are accustomed, unjustifiably, to deduce from these characteristics its capacity of personal existence. The finite being always works with powers with which it did not endow itself, and according to laws which it did not establish,—that is, it works by means of a mental organization which is realized not only in it but also in innumerable similar beings. Hence in reflecting on

self, it may easily seem to it as though there were in itself some obscure and unknown substance—something which is in the Ego though it is not the Ego itself, and to which, as to its subject, the whole personal development is attached. And hence there arise the questions—never to be quite silenced—What are we ourselves? What is our soul? What is our self—that obscure being, incomprehensible to ourselves, that stirs in our feelings and our passions, and never rises into complete self-consciousness? The fact that these questions can arise shows how far personality is from being developed in us to the extent which its notion admits and requires. It can be perfect only in the Infinite Being which, in surveying all its conditions or actions, never finds any content of that which it suffers or any law of its working, the meaning and origin of which are not transparently plain to it, and capable of being explained by reference to its own nature. Further, the position of the finite mind, which attaches it as a constituent of the whole to some definite place in the cosmic order, requires that its inner life should be awakened by successive stimuli from without, and that its course should proceed according to the laws of a psychical mechanism, in obedience to which individual ideas, feelings, and efforts press upon and supplant one another. Hence the whole self can never be brought together at one moment, our self-consciousness never presents to us a complete and perfect picture of our Ego—not even of its whole nature at any moment, and much less of the unity of its development in time. We always appear to ourselves from a one-sided point of view, due to those mental events which happen to be taking place within us at the time—a point of view which only admits of our surveying a small part of our being; we always react upon the stimuli which reach us, in accordance with the one-sided impulses of this accidental and partial self-consciousness; it is only to a limited extent that we can say with truth that *we* act; for the most part action is carried on in us by the individual feelings or groups of ideas to which at any moment the psychical mechanism gives the upper hand. Still less do

we exist wholly *for ourselves* in a temporal point of view. There is much that disappears from memory, but most of all individual moods, that escape it by degrees. There are many regions of thought in which while young we were quite at home, which in age we can only bring before our mind as alien phænomena; feelings in which we once revelled with enthusiasm we can now hardly recover at all, we can now hardly realize even a pale reflection of the power which they once exercised over us; endeavours which once seemed to constitute the most inalienable essence of our Ego seem, when we reach the path along which later life conducts us, to be unintelligible aberrations, the incentives to which we can no longer understand. In point of fact we have little ground for speaking of the personality of finite beings; it is an ideal, which, like all that is ideal, belongs unconditionally only to the Infinite, but like all that is good appertains to us only conditionally and hence imperfectly.

§ 5. The more simple content of this section hardly needs the brief synoptical repetition in which we now proceed to gather up its results and to add them to those already reached.

X. Selfhood, the essence of all personality, does not depend upon any opposition that either has happened or is happening of the Ego to a Non-Ego, but it consists in an immediate self-existence which constitutes the basis of the possibility of that contrast wherever it appears. Self-consciousness is the elucidation of this self-existence which is brought about by means of knowledge, and even this is by no means necessarily bound up with the distinction of the Ego from a Non-Ego which is substantially opposed to it.

XI. In the nature of the finite mind as such is to be found the reason why the development of its personal consciousness can take place only through the influences of that cosmic whole which the finite being itself is not, that is through stimulation coming from the Non-Ego, not because it needs the contrast with something *alien* in order to have self-existence, but because in this respect, as in every other, it

does not contain in itself the conditions of its existence. We do not find this limitation in the being of the Infinite; hence for it alone is there possible a self-existence, which needs neither to be initiated nor to be continuously developed by something not itself, but which maintains itself within itself with spontaneous action that is eternal and had no beginning.

XII. Perfect Personality is in God only, to all finite minds there is allotted but a pale copy thereof; the finiteness of the finite is not a producing condition of this Personality but a limit and a hindrance of its development.

# CHAPTER V.

## GOD AND THE WORLD.

Difficulties in this Chapter—The Source of the Eternal Truths and their Relation to God—The Creation as Will, as Act, as Emanation—Its Preservation and Government; and the Ideality of Time—The Origin of Real Things—Evil and Sin—Good, Good Things, and Love—The Unity of the Three Principles in Love—Conclusion.

§ 1. WE traced back the manifoldness of reality to *one* unconditioned primary Cause; and this One, which can give coherence to finite multiplicity and the possibility of reciprocal action to individual things, we found not in a law, not in an Idea, not in any cosmic order, but only in a *Being* capable of acting and suffering; in Mind alone, self-possessing and having self-existence, and not in a substance developing with blind impulse, did we find in truth and reality the substantiality which we felt constrained to require in this Supreme Being. The rapidity with which we hurried towards this goal of our thoughts carried us past difficulties to which we now return.

Our ideas concerning even God and divine things can satisfy us only when they are in harmony with those general laws of thought and those truths which reason sets before us as having binding force with regard to every object of which we can judge. Hence even that Supreme Being whom we reverence as the unconditioned and creative Cause of all reality, as soon as He becomes an object of our investigation may easily seem to be conditioned by general truths and laws possessing a validity independent of and prior to Him. When we speak of the wisdom of God we seem obliged to think of it as applied to truth, the independently valid content of which is recognised by God, and hence prior to Him, we seem obliged to think of His justice or any other of His ethical

perfections as expressing nothing more than the immutable and thoroughgoing conformity of His being to an ideal of all good, the eternal worth of which is independently established; even creative activity, as it produces real things, is hardly intelligible to us except as a deliberative choice that summons into reality whichever it will from the abundance of the conceivable and possible forms of future existence, spread out before it as a store from which to choose. All this is incompatible with that unconditionedness which must belong to the Supreme Reality, not only as regards its existence, but also in such a way that it determines through itself alone the form and object of its activity. We will divide the discussion of these difficulties, and unite in one inquiry concerning the *origin of eternal truths*, an explanation of the relation to the being of God (1) of the laws of cognition and of the course of events, and (2) of the determination of moral worth; and later we shall turn to consider (3) in what way we must conceive the forms of reality to have their foundation in the same divine nature.

§ 2. The philosophy of common sense generally seems to take it for granted as self-evident that even the divine activity moves within the limits which the general laws of all being and action set to any conceivable activity. When expressly questioned on this point religious faith may occasionally hesitate somewhat; but for the most part it admits this tacit presupposition and recognises eternal truth as primary and unconditioned, as being an absolutely valid necessity, to which even the living reality of God is subject. If we ignore the contradiction with reference to the unconditionedness of God which is plainly involved in this view, we yet find that it involves another contradiction which equally invalidates it—namely one that concerns the nature of truth. It is only as regards an individual and finite thing that an individual law before it is realized in it can appear as a power existing external to it; for in such a case this law is realized in other things in the states of which it is embodied, and by the coherent action of which it becomes possible for it to subject to itself things which

had as yet escaped its dominion. But the whole body of truth cannot precede the whole of reality, or that One Supreme Being from which it flows, as though it were a power existing independently *in vacuo;* for of truths we can only say that they *are valid,* not that they *exist.* They do not hover among or external to or above existing things; as forms of connection between multifarious states, they are present only in the thought of some thinker whilst he thinks, or in the action of some existing being at the moment of his action. If they rule not only the present but also the future, they can do this not because they are enthroned in eternal splendour beyond and above all reality and all time, but because, really being *in* that which is real, they are continually produced afresh by its action. Existing things receive through their own action in unbroken continuity, and as it were transmit to themselves from moment to moment, the unchanging forms of their being and their states and the connection between these, and thus they every moment reproduce the conditions of the influence which truth exercises upon them. If it were thinkable that the course of the world should suddenly cease to contain the efficient causes of that which truth commands, then this truth would no longer *be* in the world, and certainly he who should then think of it as existing external to the world in its inactive validity, would not be able to say how it could happen that reality should come to be again subject to it. Hence it is impossible that a realm of external truths should in any way exist *external to* God as an object of His recognition, or *before* Him as a rule of His working, and this impossibility does not disappear if we avoid the spatial and temporal expressions, the figurative use of which we have just indulged in. It would only be a useless change of terms if we were to call such truths not external to and before God but in Him and with Him; thought as universal necessities, to which the Divine Being like all else is subject, they would still continue to lay claim to this impossible validity, preceding and transcending all reality—a validity which we must deny to them, and through which, if they had it, they would be alien and

limiting conditions of that by which the being of God is distinguished from all other being in which their influence is shown.

The course of our thought is so thoroughly accustomed to the perverse idea of an independent truth, giving laws to reality, that we do not take offence at the contradictions which it involves. But so much the more is natural feeling hurt by our detraction from that unconditionedness of God which cannot be surrendered, if we regard it as subject to a truth which is independent of it. So a second form of the view we are considering resolves to regard the eternal truths as creations of God, which He might have left uncreated, or have created other than they are. But this opinion too speedily leads to contradiction and is incompatible with the notion of truth. For truths can no more be made than they can exist independent of reality, and no thought which is of questionable validity can by the will, or the recognition, or the command of any one, be made true if it were not so before. Statutes may be enacted ; but statutes are only commands which choose some one thinkable order of relations from among a number all equally thinkable, and that which is chosen ~~they~~ do indeed endow with actual validity, but never with that intrinsic necessity which its nature lacks. But in order that the statute itself should be enacted, there must pre-exist some truth intrinsically and independently valid which enables men to distinguish what is possible from what is impossible, and the cases to which the order that is to be established applies from those to which it does not apply. Now if it is unthinkable that *any* truth should arise by creation, it is still more impossible to imagine creative activity directed to such an impossible aim as the original production of *all* truth. For in whatever way we may picture it to ourselves, as long as we imagine that through this activity something arises which but for it would not exist, we must imagine that the activity takes effect in a certain sequence of events in which as a producing condition it brings its results to pass. But in a world in which as yet there is no truth (supposing such a world to be

thinkable) what could be called a condition and what could be called the result of a condition? Where should we find any guarantee of the connection of the one with the other, of any act having any result, or of its having the one at which it aims, and not another at which it does not aim?

The ill-success of these two extreme views is sought to be avoided by a third view which takes a middle path, declaring these eternal truths to be neither objects recognised by God, nor creations of His arbitrary will, but the necessary consequences of His own being. But it is a mistake to think that the difficulty can be avoided in this way. If there is to be any meaning in saying that something proceeds as a logical consequence from the nature of God, we must, in thought at least, oppose to this another something, proceeding as an illogical consequence from the same nature. In order to distinguish the two we need some universal intrinsically valid standard, measured by or compared with which the one something may be recognised as deducible from a definite source, and the other something as not deducible from the same source. Thus we find ourselves led back by a very short road to the necessity of assuming some unconditioned primary truth as having binding force even upon the being of God, in order that by it we may be able to comprehend as logical results of the divine nature those eternal truths which can be deduced from it. However sensible we may be that this attempt follows a true impulse, still this formulation of its results is a failure, and other considerations are needed in order that we may turn to advantage the good which it does contain.

The resultlessness of all these views, which we have presented in their most unmodified and therefore most intelligible forms, is due to the concealed ambiguity with which they apply the name of God. When we doubt whether God recognises truth or establishes it, whether He wills that which is good, or whether if He wills anything it is thereby good, we must first of all get clear the question, Is the God to whom these propositions refer regarded as the God whom our religious consciousness seeks and acknowledges, in His

fulness and completeness; and are the activities or properties which form the predicates of those propositions already included in the concept of Him in such a way that the propositional form only serves to set them out afresh for the sake of explanation after the manner of analytic judgments? Or is the name of God here merely a provisional anticipatory designation of a being to whom the content of these predicates does not as yet belong, so that the propositions referred to express, after the fashion of synthetic judgments, some process, some activity, or some event, which is intended to endow that being with these predicates for the first time? That the second of these assumptions is in a religious sense unmeaning, and is in itself unthinkable, we will try to show by taking for illustration two familiar questions, around which the strife of opinions has been concentrated, as representatives of the metaphysical and ethical difficulties of the subject.

The first of these questions—whether God recognises or brings to pass the truth of the proposition $2+2=4$, and whether He could make true the proposition $2=2+5$, does not very happily express the point which is here in question. It gives an impression that the point in dispute is whether God could replace the one proposition which is now true, by the other which is now false, arbitrarily raising the latter to the rank of a truth. In doing this, however, He would not create truth at all, but presuppose it. For in order that it may be possible to express any proposition in the form of an equation, in order that the correct proposition $A=A$, the questionable proposition $A=B$, or the erroneous proposition $A=Non\text{-}A$, should have any imaginable meaning, the truth or untruth of which we could discuss, it is indispensable that each of these letters should indicate a content which is in itself something stable, self-identical, and distinct from everything else, and can hence be called by a name which belongs to it alone. Hence from every individual thing that is to be thought as having any relation, true or false, to some other, the Law of Identity must be of prior validity as the simplest

truth, without which there can be neither other truths nor any untruth at all. Hence, more generally expressed the question would run thus — Can the will of God establish the Law of Identity so as by means of it to make true some individual relation which contradicts it? But the answer to this question is devoid of interest; there is no natural and unavoidable motive for raising it. He who should believe that he must answer it affirmatively for the sake of unconditioned divine omnipotence, would be obliged both in the question and in the answer to treat the notions of the contradictory and of the non-contradictory as having an already established definite significance, *before* it could be decided what attitude the divine omnipotence would take with reference to those notions. Now if it should decide to establish as truth the contradictory—that is what was contradictory *before* its decision—it would not create *all* truth, it would not first establish the notion of truth, it would be but an arbitrary will, struggling to upset, as far as possible, truth which it found already binding. No religious need drives us to seek in God omnipotence thus devoid of intelligence. Hence the second clause of this much-debated question must be dropped, and limiting ourselves to the first clause, we ask only whether the truth which is *not yet* can be established by God? Now an omnipotence which could only accomplish whatever was possible would indeed be merely the greatest among all finite powers, but such as could accomplish the impossible would be none the less finite; for it would presuppose something impossible in itself, that is impossible without the help of omnipotence—something that omnipotence would be able to make possible; but the only true omnipotence must be that which first produces the whole unnameable region within which there is a distinction not previously existent between the true and the untrue, the possible and the impossible.

Now if this is the real meaning of creating truth, who is the God to whom we ascribe this creation? Is He not the perfect and complete God in whose being we imagine that all truth already is—but if for him who is to create truth it is

*not yet* valid, in what does his being and his omnipotence consist, except in a general capacity of doing, that is without content and without direction, and that certainly appears wholly unlimited, but only for this reason, that it neither finds objects with which it could enter into relation, nor rules by which it might regulate its procedure? This, however, is an idea that signifies nothing which could possibly exist. If from examples of various performances we frame the general notion of capacity or power, we obtain an abstraction logically allowable, and applicable in thought, the content of which, however, does not denote anything that can exist until we supply that which we had previously abstracted. As there is no motion without velocity and direction, and none which could be endowed with velocity and direction after it had come into existence, so we cannot conceive of any power that has not some mode of procedure, nor of any empty capacity that in its emptiness hits upon definite modes of activity. Hence even the divine power cannot be thought as without content and without direction; and the definite mode of action in which it thus consists, and which when we reflect seems to exclude every other conceivable mode of action, is by no means to be regarded as a limitation of its unconditionedness. It would indeed be so for a finite being; for such a being finds the modes of activity from which its nature excludes it existing beside it as regions really subject to the power of other beings, regions which are closed to it, and hence form impassable boundaries of its own activity. There is nothing of this kind in the case of the Infinite; being itself the ground of all reality, it is also the source of the various possibilities of manifold activity which reality contains; no mode of action beyond its own can be opposed to it as independent of it, or at least as a reality inaccessible and forbidden to it. If it should be asserted finally that the unconditionedness of the Divine Omnipotence is detracted from not only by the reality but by the very conceivability of other action than its own, we deny this also, and the denial will serve to make perfectly clear the meaning of our own view.

For we use this necessity of associating with the notion of any power the thought of some definite mode and kind of action, in order to maintain that just that which we know as the sum of the eternal truths *is* the mode in which Omnipotence acts, but is not *created* by Omnipotence—in other words, this sum of eternal truths is the *mode of action* of Omnipotence, but not its *product*. This signifies, in the first place, that Omnipotence remains an imperfect notion, signifying nothing real, if eternal truth is not associated with it in thought, showing the direction and kind of its action; it signifies further that truth is real not merely in itself, but only as the nature and eternal habitude of the highest activity; and finally, it signifies that truth regarded as truth, that is as a whole of thoughts connected together and conditioning one another, has but a derived and secondary existence in the mind of the thinker by whom it is thought. An intelligence which being itself a part of reality, is itself under the dominion of these eternal habitudes of all action, in comparing the various examples of being and action discovers truths as the general ideas which make comprehensible to it the connection of the details of reality *posterior to* its existence as a whole. And then for such an intelligence there arises for the first time the delusive appearance that this universal, which the individual may think as the precedent and conditioning principle of his thoughts, has also preceded all reality as a destiny existing and ruling in the shadowy emptiness of unreality; it appears to this intelligence that before the existence of the world *and of God*, there existed an ordered realm of possibilities and necessities—that real things which only subsequently come to exist, by assuming some one of these ready-made forms, realizing some one of these possibilities, become thereby finite and limited, and, by the fiat of that already existing necessity, excluded from being some other possible thing which goes on possessing an indescribable existence, in some indescribable locality beyond the world and reality, itself bounding and limiting all reality.

We have here touched an absolutely decisive point in our philosophic theory; but since it has already so often, and

in so many forms, been the topic of our discussion, it is sufficient here to give it the expression which we have just done, which gives an answer to the second as well as the first of the questions raised For impossible as it appears to imagine truth as the creation of Omnipotence for which it is as yet not valid, equally impossible is it to understand it as an object of recognition for any being that does not by its own nature participate in it. Only he for whom truth is true can recognise it as truth. An intelligence which, being destitute of any innate rule of its procedure, should serve only as a mirror to bring into view everything existing external to it, would, if it were possible to imagine it at all, reflect truth and error with equal impartiality, and without observing the distinction between them. The understanding can find truth only where it sees the content of its thought agreeing with a standard which it carries within itself, agreeing that is with the laws of its own procedure in the combination of given material. Hence it only recognises truth in as far as it belongs to its own nature from all eternity; truth that was originally unconnected with it, it would neither comprehend as such, nor, as a matter of fact, recognise in such a way that this could subsequently become a rule of its procedure. Thus it appears to be in every way impossible to set up in opposition to truth, a God for whom truth has as yet no validity, whether we regard Him as its creator or as accommodating Himself to it; truth cannot be created by His *act*, but it is only through His *existence* that it subsists; it cannot be external to him who is to recognise it, on the contrary its recognition is only thinkable as cognition of one's own being in it.

It would be superfluous to analyse at equal length the second example to which we referred. The Good cannot be established by any divine will, nor be to it an object of recognition, unless that will already contains that Good in the same way as we have said that truth must be contained by the mind which apprehends it. If God, without being determinable by ethical predicates, were merely a power developing

in some living form or other, or a will working from the beginning in some one direction, harmony with those forms of development, or movement in that direction of working, would certainly be a condition of subsistence and wellbeing for any finite thing dependent upon Him; and if there subsisted in this finite thing a consciousness of its existence and position, those conditions would appear to it as commands, the neglect of which it would be dissuaded from by fear, and punished for by remorse. But in such a case the notion of Good as of an ideal having binding force in virtue of its own majesty, could arise only through a somewhat incomprehensible error of limited finite insight; the binding force could not be deduced from such a will, and faith in its unconditioned supremacy would have to be explained as an illusion But for the same reason Good could not be an object of recognition to God. Supposing the unconditionedness of the Divine Being not to be lessened by the fact of its being decided external to and independent of Him, what is good and what is not good, yet even then His will could only recognise the value of the Good thus given, if He Himself in virtue of His own nature had already attached equal value to it, just in the same way as the understanding comprehends given truth as truth only because it is true for that understanding itself. So that in the case of goodness as well as in that of truth it appears inadmissible to separate from God those essential perfections by which only the notion of Him is made complete, and then to assume as an already existing Being an unintelligible Divine Nature to which these perfections are subsequently added by a deed or a series of events which might possibly never have come to pass. Every such attempt mistakes the arbitrary circuits made by our thought in the consideration of its object for a movement of the object itself, which, being eternally the same, is simultaneously all that which our thought can comprehend only in succession.

§ 3. Religious reflection analyzes the relation of God to reality into Creation, Conservation, and Government, and we will now make these three notions of divine working the

subject of a question as to the formal conditions of the relation between God and the world which they indicate; we do not as yet touch upon the origin of the inventive thought by which God has given content to that which He created, order to that which exists, plan and direction to that which happens.

Creation cannot be an object of investigation in the sense of our seeking to find the process by which it was brought about; such processes can take place only within a world that already subsists, the constituents of which are capable of action and of being combined in an orderly fashion so as to produce results. But creation, regarded as having taken place, establishes a permanent relation between creator and creature, the meaning and religious worth of which it is the more necessary for us to consider because it is not similarly understood by all. Is reality a production of the divine *will* only? Or is it an *act* of God? Or, finally, is it a non-voluntary *emanation* of His nature? In giving an affirmative answer to the first of these questions, we receive only partial approbation from religious feeling, which, especially in the present day, seems more inclined to regard as an act of God that which it intends to indicate by the notion of creation. For the soul feels that it possesses the living God after which it longs only when it is allowed to speak of a work of creation, in which God, pervading every smallest part of existing reality with His living nature, would in truth *produce* that which, according to our view, would on occasion of His will *arise* as it were spontaneously.

If a movement of our limbs seemed only to follow our volition, we should almost cease to regard it as ours; it would be as foreign to our own being as now those further results appear to be which our action brings forth in the external world—*they* come from us, it is true, but *we* are no longer present in them. But this is not the case; on the contrary, at the moment of movement we think that we directly feel the transmission of active will into our limbs; we think that we directly feel even the smallest remission or increase of tension which the will from moment to moment calls forth in

the living members of the body; and all this happens, not as though at a distance from us, so as to be indirectly experienced by us, but we believe that we are ourselves present at every point at which these processes take place; nay more, it seems to us as though we plainly felt how our active force is efficiently transmitted even to the foreign body which we handle, and as it were pervades and restrains the non-Ego in its own domain. It is this self-enjoyment of our own living energy which the view that regards creation as an act refuses to omit from the notion of God, and the worth of this religious need may be recognised, although we must hold that this mode of satisfying it is erroneous.

For a well-known psychological illusion has here misled men into looking for the distinction between our action and that which merely has its origin in us, in a place where it cannot be. The feeling which accompanies our movements is not a sense of volition in the full swing of an activity by which it compels results, but is a perception of the *effects* of volition *after* they have been produced in a fashion wholly imperceptible to us. Our will does not really *produce* the movement in the sense in which this view always holds that it does; but to every volition that arises, in as far as it is a definite state of the soul, there is attached as an inevitable consequence some definite movement in accordance with an ordered connection of natural effects which is equally withdrawn from our insight and our control. Whilst this movement is taking place, or after it has taken place, we receive from the changed condition of the limbs which it brings about, or in which it consists, sensations of which this changed condition is the cause, and which do indeed reveal to us that which has taken place in us as a consequence of volition, but not the slightest hint of the mode and fashion in which this result has been brought about. That by which our act is made our *act* and distinguished from that of which we are merely the *cause*, does not consist in such an outgoing of the active being beyond the limits of its self that it still remains itself in that foreign object of its energy into which it flows

with active efficacy; *all* acts are *consequences* of volition, inevitable consequences, and not requiring any special impulse to realization, provided the volition itself is once definitely present, and the way in which these consequences arise is precisely similar to that in which arise the consequences of other and non-voluntary mental conditions, or the incidental consequences of volition directed to some other end. The essential characteristic of an act is that it is the consequence of a volition which willed it and nothing else, that it is not the consequence of a feeling, or of an idea, or of any other mental state except volition. The will may be prevented from actually realizing its result; but no one can contribute more towards making the result of that volition his own *act* than a steadfast and undistracted volition; it belongs *to us* only because we will it, and do not by divided willing put hindrances in the way of the mechanism by means of which it follows our volition as a necessary result; but nowhere is there any work of ours through which, by fresh activity on our part, it is either necessary or possible for us to bring about the result of our volition.

For a finite being work is the sum of all those intermediate operations which it has to set in action because its will cannot influence directly the foreign objects which it intends and strives to modify; but the finite being *feels* itself working to the degree and extent to which the connection of natural processes furnishes it with direct sensations of the consequences of its action; hence the movements of our own body are the only part of the result which seem to us to be our own work—those changes which we aim to produce in the external world do not seem so, because we perceive them only mediately as facts that have taken place, and are not made aware of them as our act by an immediate feeling of effort. But in this meaning of work there can be no work for God, for His will does not find in the alien nature of the objects with which He deals the same barrier as ours does; but for the same reason the self-enjoyment of His own vitality and energy belongs to the Divine Being in boundless measure; for stand-

ing in an ungraduated and equally intimate relation to all parts of reality that either already exist or are coming into existence, He will be directly conscious of *every* consequence of His will as being what it is, and it is not conceivable that any event proceeding from God's will should be for Him such an alien development of something external, as the last ramifications of a series of events which we initiate must certainly be for us. Hence we may affirm in conclusion that we do not attribute to God any greater vitality by characterizing His creation as work, for all work, in as far as it is indirect action, belongs only to the finite; the divine will does not work out its result, but *is* that result; we do not impute to Him any greater vitality by describing creation as His act and not as a simple consequence of His will, for such a distinction does not exist, every act being but a consequence of volition; but if we drop all notion of mediating activity or of work, or of action that goes out of itself, and regard as equivalent divine volition and its consummation, then we can imagine the living pervasion of the creature by the Creator and boundless enjoyment by the Deity of His own activity—a self-enjoyment which we finite beings can attain to only by the roundabout path of that obliging psychological illusion to which we referred.

If then we do not regard creation as an act, what is the attitude which we take up towards the view which considers it as an efflux of the divine nature, or in the more definite form which alone can interest us, as an emanation of the divine intelligence? Has it been our intention to agree with the view which regards the imagination of God as having indeed designed and planned the possible content of the universe, but as awaiting the realization of the same from the will which is to summon into existence but one, and that the best, of many possible worlds hovering in the realm of potentiality? On the contrary, we must characterize this splitting up of the divine activity as also erroneous.

And above all things it would be not the will but the insight of God which among many possible worlds should

discern the best; not the choice but the realization of that which was chosen, would be the work of the will. But I fear that for this work he only could specify a special content who should seek reality in a wholly incomprehensible separation of the world from God, whether as proceeding out from Him or being established external to Him. If we drop this impossible spatial image, how shall we distinguish those divine thoughts which have been realized from those which hover unrealized in the divine imagination? How but after the same fashion as that in which we distinguish our own ideas of empty possibilities from perceptions of reality, and unfulfilled projects from efficient motives of our action? All these empty possibilities too *are* real—as real as their nature (*i.e.* the nature of their content) permits; they subsist as our thoughts, as movements of our soul, and have all the influence upon us of which their content, and the form of their existence as our states, makes them capable. But it appears later that regarded as motives of our action they would *not* be adequate causes of a desirable result, and hence they do *not* become efficient motives of our action; or it appears that regarded as perceptions they are not causes of those results in the phænomenal world which we attributed to them, and hence we come to regard them as illusions, not because they are nothing whatever or are non-existent, but because they are without effect in the system of things external to us. And it is in the same way that we distinguish the unrealized from the realized thoughts of God; not by supposing that many possible worlds hovered before Him and that His will realized one of them by an act the content of which must remain altogether incapable of being specified. For in being all equally possible they all possessed reality already, and we could conceive nothing else by which, as by a reality now starting up for the first time, the elective will might be induced to prefer any one of them to the rest. If we may speak of the subject after the manner of men, then we would say that what remained unrealized was clearly seen by God from the beginning in its resultlessness, in its lack of such consistency as would have

made it possible for it to become the basis of progressive cosmic order, and in its incapacity of combination with that which God's will had determined as the content of creation. In us finite beings there may be permanent illusions and projects incapable of being carried into effect, to which we yet continue to cling; for the ends at which our action aims are presented to us by the course of external circumstances so that we have only an imperfect view of their advantages; *our* knowledge of reality is gained not by direct and penetrating insight into things but by interpretation of subjective excitation. But it is not so with God; and hence our thoughts concerning His creative action must set out not from the equal possibility of that which was uncreated, but from its impossibility which was originally recognised by Him.

But this expression needs some correction and explanation. Above all we cannot mean that the images of different worlds were present to and known by God as being *in themselves* possible or impossible in the same way as many combinations of our ideas, which we, being conscious of the laws of a real world independent of us, regard as being in themselves impossible, or incapable of being carried out in *that* world of reality. For God there was no reality *within which* He had to realize His creation, nor laws which, prior to Him, *of themselves* determined what was possible and what was impossible. But when God thought and willed the thought of *His* world, He created also in it that logical order in virtue of which it became possible that there should arise empty images of other realities as incompatible with that world; the cause and ground upon which is founded a distinction of the possible from the impossible and from the real, is subsequent to the reality of the first real existences. And further, we do not believe God to have drawn such a distinction between these two realms of thought—that which was willed and that which is alien thereto—as to induce Him to realize the content of the first, and by withholding His realizing activity to consign the second to the eternal nothingness of empty thought—of thought which is *mere* thought; it is, we repeat,

simply impossible to say in what the distinction between the two could consist, if we consider this distinction to be established by a divine act, and do not seek its significance in the difference between that which has been and that which has not been realized. Both are thoughts of God; but the thoughts of the non-existent are thoughts which on account of their content—of their own resultlessness, their incoherence and the incapacity of development of their constituents—could neither form worlds, nor enter into connection with those thoughts of existing things which are connected and logically consistent. Thus to the consciousness of God they appear as unconnected with the world which He wills, of active interference with which their own content makes them incapable, and to finite beings they appear as non-existent. For the thought of such beings can indeed produce the empty images of them, but it nowhere discovers a trace of their efficient connection with that order of things which from the standpoint of finite beings, is regarded as reality because it is the thought of God in which they themselves have their place and which influences them with all the fulness of its logical consistency. And thus there arises for finite minds the illusion that this reality (that is the active efficiency of real things that results from their content) is due to an act by which that is realized which is in itself merely possible—an act that must always remain insusceptible of definition.

And now at last we need no longer fear that any one will misunderstand us to such an extent as to suppose that we have wished to represent the world as an emanation of the divine intelligence and not as proceeding from His will. We do not indeed use the expression *product of His will* because we do not wish to call up afresh the already rejected thought of a special act of realization. But yet we say that the world was willed by God, and this expression we have already frequently used provisionally. It is only for the finite being that will is principally an impulse towards change, towards the establishment of something which did not exist; but the real nature of will is only the approval by which the being

that wills attributes to himself that which he wills, whether it is something that is to be realized in the future, or something that exists in eternal reality. The objects upon which a finite mind is occupied are brought to it in succession by a cosmic order which is independent of it; and all the more on this account does it seek its will in the mobility which produces what was non-existent, changes or abolishes what was existent, and demeans itself as independent towards those occasions of its exercise which it cannot with equal independence bring about. And yet at last even for the human mind that which is most important in will is to be found, not in this mobility of the change-producing impulse, but in the approval or disapproval with which the whole man wills or does not will, accepts or rejects, himself. It is such an uniform and unchanging will that we have regarded as connected with or eternally based upon the divine thought of the world; we could not understand it as the mere conclusion of deliberations carried on by unvolitional divine insight without unduly assimilating the divine being to the image of a finite mind. And it would not be impossible to show that intelligence without will is as inconceivable as will without insight; we are withheld from setting about the proof here by remembering the extent to which we have already penetrated into a region where countless misunderstandings may attach to each of the imperfect expressions which we are obliged to employ in order to indicate in some way those extreme limits of human ideation of which we are forced to take account.

§ 4. Conservation and governance in as far as they concern Nature and the course of Nature have already frequently been objects of our consideration (cf. *supra*, p. 130, and i. p. 446). And it is only in so far that they belong to the task which we have set before ourselves, and we never considered it part of that task to exhaust the relation of God to the spiritual universe, to the meaning, end, and destiny of all things. But a single point in this wide world of thought induces us to make an addition which is called for by what has gone before. If the world were but a chain of mutually conditioning

events, if all the future were but a logical development of the past, conservation and governance, without being beset by any peculiar difficulties, would be but various expressions of the divine creative activity. But religious faith finds such a mechanism of the cosmic course neither correspondent to its own need nor worthy of being the divine creation; it assumes that the freedom of finite beings introduces into the cosmic course new beginnings of action, which, having once come into being, proceed according to the universal laws of that course, but have not in the past any compelling cause of their appearance. Thus it is that conservation and governance come to have a work to do. But how does this assumption agree with the unconditionedness and perfection of God, how with His omniscience which that perfection cannot lack, and which could not subsist without foreknowledge of the future? To attain by inference to a knowledge of the future which has its causes in the present is a prescience possible for us in a limited degree and belonging to God to an unlimited extent; but what can be the meaning of saying, as people do, that God foreknows that which is to happen through freewill in the future, not as something that *must* come, but as something that *will* come? If the future does *not exist*, how could this non-existent (unless represented in the present by its causes and thus *not* free) stand in any other relation to cognition than that which never will be, and how therefore could it be distinguished from the latter?

It is certainly a somewhat strange proceeding when we finite beings who are so often reminded of the limits of our knowledge, ask questions concerning the possibility and conditions of omniscience, and expect an answer to our questions. We can foresee that we shall end with a postulate, of which we cannot describe the fulfilment, satisfied if the reflections from which we can start do not make that unknown fulfilment appear as a dream that is altogether ridiculous.

It has been attempted to make the unconstrained freedom of fresh beginnings compatible with omniscience by the assumption that time is but a form of intuition under which the world

appears to us, but in which it does not exist. This inversion of the ordinary view, however, cannot be so easily carried out as the similar inversion with regard to space; space could be given up because without it there still remained to us a complexly organized world of intellectual reality, clearly exemplified in our own inner life; but in order that any event should appear in time, must we not presuppose that there is an actual succession of its phases, or at least an actual temporal succession of ideas *in us* by which the merely apparent succession of these phases would then be determined?

Much may be said in answer to this natural objection without invalidating it. It is true that empty time in which events take place, or a current of empty time flowing on of itself, could be neither a producing nor a determining condition of the course of events. The passing moments could not bring reality with them, they could not choose what should last or what should pass away, they could not determine the place at which each event should enter into their current. It is only through that position with regard to the whole which every individual occupies in virtue of its significance, of its being conditioned by one and having itself conditioning force with reference to another, that the point of its entrance into time and the length of its duration in time are determined. Now if this one essential of action—the direction which it takes and the order into which it falls—lies only in the conditioning bond of the content itself, as it is taking place, empty time is just as little capable of producing from this timeless connection the movement and succession of action. Any given extent of empty time is exactly the same at the end as at the beginning of its course; however great or however small we may imagine it, nothing occurs in consequence of its lapse through which there could be produced a condition of or necessity for the appearance of any event of which the cause already subsists, more adequate or more constraining than that cause and that condition respectively were at the beginning of this vain expenditure of time. If the causes which then subsisted were not capable of effecting

the realization of the event in question, then no lapse of time of whatever length would be sufficient to supply this lacking motive force. Such reflections favour the attempt to seek true reality only in the conditioning force which every event exercises upon its own result, regarding time, which appears to our imagination as the unending form in which this order is embraced, as a mere form of conception in which, for us only, is spread out the timeless connection of the cosmic content. And it is possible, up to a certain point, to give clearness even to this unusual mode of thought. In themselves, past, present, and future are not different as far as time is concerned, but simultaneous—if we can allow that this phrase, incorrect in itself, is intelligible; in this whole of reality nothing passes away; but the whole is a whole of members which condition one another, and is comparable to a system of truths of which the simplest condition all the rest, and (to make use here of a natural figure) precede them not in time but in importance; not only does the series of consequences proceed in a straight course from them, but also all the propositions which depend in equal degree upon those principles, appear as co-ordinate, simultaneous, and of equal value. Reality, as we know, is no system of truths, and we must allow for the inadequacy of the comparison; but it is so organized by means of relations of reciprocal conditioning, that each of its parts presupposes immeasurable series of causes, draws after it an equally immeasurable series of results, and finds itself at the same distance as countless other members, from the first causes, or from any given member of the whole. It is this organization which is intuited by cognition in temporal succession; the condition precedes that which it conditions, the latter follows, the causes and results which are most closely connected are in immediate juxtaposition, the more distant results are divided from their immediate cause by a space of time which is filled up by the successive intermediate links which connect it with that cause. And it is not to a cognizing mind, standing without and regarding it as some alien mechanism, that this organiza-

tion appears thus, all finite beings are themselves members of this series, and to each, in its due place in the series, the assumptions which it involves, as far as it knows them, appear to be past, its consequences, as far as it is certain of them, to be future; and for the rest, the whole of its unknown causes and of its incalculable effects appear as an endless past and an endless future.

This view admits of development so far, and is right as far as regards the order and connection of the events as they take place; but if it denies with cogent arguments the existence of unending empty time, which even according to our natural way of thinking is never held to exist thus, but is regarded as unceasingly passing away and then again coming into being, it cannot by any ingenious torture of thought really avoid that unceasing ebb and flow, the temporal *succession* of events. It is indeed true that it does not fail because the idea of that which we think as earlier must precede in time our idea of that which we think as later; on the contrary, it is only a consciousness that comprehends both in one wholly indivisible act, that is in a position to compare them and to assign them their different places in the apparent extension of time; but even these indivisible acts are repeated and follow one another. Any finite being placed at some particular spot in a timeless system would always necessarily see as its future some one special content whether clear or obscure, and some other as its past; life which makes the former more and more clear and the latter gradually more and more faint, is not conceivable without a real stream of occurrence which carries consciousness past the content of the world, or the content of the world past consciousness, or lets both change together.

But this necessary recognition of the course of time is connected in us with a strong feeling that the recognition cannot contain any final utterance on the subject. We are very ready to declare that what is gone is gone for ever—but are we fully conscious of all that this declaration implies? Is all the wealth of the past wholly non-existent? Is it

entirely broken off from all connection with the world, and not in any way whatever preserved as part of it? And is cosmic history nothing but the infinitely narrow and incessantly changing streak of light which we call *the present*, glimmering between the obscurity of a past which is done with and is no longer anything, and the obscurity of a future which is also nothing? In expressing these questions thus, I follow that turn of thought which seeks to modify the monstrousness of their content. For these two abysses of obscurity, however empty and formless, are yet supposed to *exist*, and to constitute an environment of which the unknown interior offers a kind of dwelling-place for the non-existent—a place into which it has disappeared or whence it comes. But if one tries to do without even these images and not even to imagine the emptiness which bounds existence in both directions, one will find how impossible it is to do with the naked contrast of existence and non-existence, and how ineradicable is men's desire to be able to regard even the non-existent as being in some wonderful way a constituent of reality. Hence we speak of the distant future and the distant past, this spatial image satisfying the need we feel of not letting aught of that which does not belong to the present escape from the greater whole of reality.

Unable as we are to specify how the lapse of time comes about, and how the condition of any given moment passes from existence into non-existence, in order to make room for the condition of the succeeding moment, we are equally unable to say how on the other hand there comes to pass this comprehension in a contemporary or supratemporal reality, of that which is ever flowing on. But accustomed to find the world more wide and rich than thought which tries to follow its marvellous structure, I entertain no doubt as to the fulfilment of this postulate, of which indeed we can only speak in a limited human fashion. There does not exist for God the condition which binds us to one definite spot in the universe, making it possible to refer to this region of our immediate experience—our present—as past or future every-

thing that is or happens external to us; God Himself being not a member of this whole but its all-embracing essence is as near to any one part of this reality as to any other, and although there lie open to His all-penetrating knowledge those inner relations by which this whole would be systematized into temporal order, yet for Him no particular point has exclusively the specific worth of *the present*; for God, this belongs to the infinite whole.

And finally—to return to the point which gave rise to these reflections—free actions also find their place in this timeless reality; not as non-existent and future, but as existent. For although not conditioned by the past, they would be unmeaning unless they had reference to present occasions which furnish the ends at which they aim, and unless they attained reality by producing results. Hence their place in this timeless existence is determined not by members which preceded them as conditions, but by members which succeed them as conditioned, or are co-ordinate with them; hence omniscience need not foresee free action as something that will be, but can observe it as something real, which, regarded as a temporal phænomenon, has its place at some definite point in the future.

§ 5. We have already (cf. i., p. 384) so unreservedly acknowledged that it is impossible to derive from anything else the inventive thought from which spring the forms of natural reality and also (as we may now add) those of the historical course of the world, that we need not now venture on any fresh attempt in this direction. But as far as we are concerned, one of the motives which generally urge men to such efforts has become inefficacious. We no longer hold that a realm of eternal truths, of formal necessities, of abstract outlines of all later reality, is absolutely prior to all else in the Divine Being in such a way that the rich and varied forms of reality when compared to it must appear as something wholly new, as some spontaneous action which, showing itself under forms that we cannot calculate beforehand, submits to this alien Being. The eternal truths are for us only the

modes in which creation itself proceeds; they subsist not before it but after it as laws to which the products of creative activity appear subject. And at this point we must go back to a more exact determination which in what precedes we let drop for the sake of clearness. Properly speaking, neither a law nor the sum of eternal truths can be accepted as the direct mode of procedure of any power; for truths and laws determine only the reciprocal behaviour of the various manifestations of any force, but they do not give the very content that can be broken up into these various manifestations. Hence if we cannot derive from universal necessary truths the reason why this particular reality and no other subsists, we have also to remark that it is no longer any part of our task to make such an attempt—that direction of the eternal power which led to the existing world of forms *is* the original first and only reality, and whilst it acts or when it has acted it appears to thought (which itself is included in it as its product) from the double point of view of living creation in a definite direction, and of an activity which in its procedure follows universal laws; and it is then that for the first time occasion is given to thought to dream of other directions of that creative activity which do *not* exist, and the possibility of merely thinking which depends upon the reality of the direction which *does* exist and of the inner order of the creative force that works in it.

But this consideration does not furnish us with a complete conclusion. Even upon the assumption that we are only concerned with a natural cosmic order, and are not called upon to give any account of worth and goodness, it would still only be satisfactory if it could be shown how from the content which the creative force strives to realize, the sum of the eternal truths results, as an abstraction which separates that which is universal in the self-evident procedure of the force that produces all the parts of this very content itself. There is no hope of any such achievement. Stress may with justice be laid upon a difficulty which would make it impossible for *us*, even if the connection to be

pointed out did actually subsist—it is only a very small part of reality, only Nature as terrestrial that we know; we do not know the forms of existence and action which subsist elsewhere, or the connection between these and our own sphere of experience; hence we are quite unable to comprehend the tendency of creative force, the inventive and formative thought which it obeys, in *one* notion which should characterize it completely, exhaustively, and impartially; hence it is impossible for us, from the fragmentary view of the connection and meaning of Nature, which is all that has been accorded to us, to deduce the universal laws of its procedure as they might be gathered from the complete content of the creative Idea as an abstract expression of its action, by any one who knew that content. I do not doubt that such an all-embracing knowledge of Nature as a whole would oblige us to give up a number of our ordinary points of view, would cause many perplexities to disappear, and would wholly transform many difficulties; but I need not undertake the perplexing inquiry whether it really would do what is expected of it, and make possible the achievement referred to, for I have a conviction (which I trust the reader shares) that just this boundless insight into Nature would show the invalidity of the assumption with which we set out; it would appear that there is not working in the world any bare formative force, but that the inventive thought which determines cosmic forms is indissolubly connected with the realm of Worth and Good. The lesser question, How are the universal laws connected with the formative thought? is absorbed into the more important one, In what connection do both stand to that which has eternal worth?

Religious faith is accustomed to consider some supreme good as the guiding end, free creative divine imagination as the means by which the end is realized, eternal truth as the law according to which this imagination and its products work. Now if we beheld in the world unequivocal and thoroughgoing harmony between these three principles, the attempt to combine them might be regarded as practicable.

Creative imagination indeed could never properly be derived from the Supreme Good; for no end, regarded abstractly and in isolation, determines more than certain general requirements which seem capable of being fulfilled by various means; and just as little could laws be derived from the direction taken by that imagination. But it might perhaps be shown that just as the power is not conceivable in itself but only as acting in some definite direction, so also Good, thought in its universality, is but an abstraction from some definite existing good, which would not be opposed to the coming reality as a formless end, the mode of carrying it out being as yet undetermined; but would be directly identical with that which we called the direction of the creative imagination. And then there would be only *one* thing: only the one real power appearing to us under a threefold image of an end to be realized—namely, first some definite and desired Good, then on account of the definiteness of this, a formed and developing Reality, and finally in this activity an unvarying reign of Law.

Before giving to this view, which is a confession of my philosophic faith, the furthest elucidation which I am able to give, I would lay stress upon the decisive and altogether insurmountable difficulty which stands in the way of its being carried out scientifically—that is, upon the existence of *evil* and of *sin* in Nature and in History. It would be quite useless to analyse the various attempts that have been made to solve this problem. No one has here found the thought which would save us from our difficulty, and I too know it not. It may be said that evil appears only in particulars, and that when we take a comprehensive view of the great whole it disappears; but of what use is a consolation the power of which depends upon the arrangement of clauses in a sentence? For what becomes of our consolation if we convert the sentence which contains it thus—The world is indeed harmonious as a whole, but if we look nearer it is full of misery?—He who justifies evil as a means of divine education, ignores the suffering of the inferior animals and

all the incomprehensible stunting of the life of Mind which we see in history, and limits the omnipotence of God; for evil is only used as a means of education because there is no other means. And finally, we are not satisfied even if this limitation is admitted not secretly but openly as by Leibnitz, who in every case of irreconcilable difference between the omnipotence of God and His goodness, believed himself bound to decide for the latter, and to explain evil by reference to the limits imposed by the primeval necessity of the eternal truths even upon the free creative activity of God. For of all imaginable assertions the most indemonstrable is that the evil of the world is due to the validity of eternal truth; on the contrary, to any unprejudiced view of Nature it appears to depend upon the definite arrangements of reality, beside which other arrangements are thinkable, also based upon the same eternal truth. If there were retained the separation (which, however, we do not admit) between necessary laws and the creative activity of God, in our view evil would undoubtedly belong not to that which must be, but to that which is freely created. Let us therefore alter a little the canon of Leibnitz, and say that where there appears to be an irreconcilable contradiction between the omnipotence and the goodness of God, there our finite wisdom has come to the end of its tether, and that we do not understand the solution which yet we believe in.

§ 6. I was no doubt wrong when I first offered these reflections to the courtesy of my readers, in passing over this gap in our philosophic theory, which cannot be filled, with words which though they seemed to me emphatic enough were yet but brief. What moves me to the following remarks is not the hope of now filling up the gap, but the wish that no doubt should remain as to the meaning and end of all the reflections in which the reader has hitherto been so obliging as to accompany me. I have never cherished an assurance that speculation possesses secret means of going back to the beginning of all reality, of looking on at its genesis and growth, and of determining beforehand the

necessary direction of its movement; it seems to me that philosophy is the endeavour of the human mind, after this wonderful world has come into existence and we in it, to work its way back in thought and bring the facts of outer and of inner experience into connection, as far as our present position in the world allows. I acknowledge my steadfast adherence to the old-fashioned conviction, that not only is our scientific knowledge but fragmentary, but that also there are ways to lead us to fuller light which are as yet hidden from us; the task of our philosophy is not vast and cosmic but modest and terrestrial—it has to construct the image of the world as projected on the plane surface of our mundane existence. I might work out this simile, and appeal to the fuller dimensions of true reality in which may be reconciled supreme goodness and the existence of evil, which in our view must always conflict; but all that I should accomplish with such a juggle of words would be to veil the admission which we must frankly make, that we cannot even imagine the direction in which the unknown conciliation of the difference is to be sought.

If I still hold fast my confidence in the existence of a solution which we do not know, what I wish to give expression to is not a didactic affirmation to be bolstered up by some kind of speculative support, but only the watchword of a struggle in which I desire that my readers should participate —a struggle against the confidence of views which impoverish faith without enriching knowledge. But to regard the course of the world as the development of some blind force which works on according to universal laws, devoid of insight and freedom, devoid of interest in good and evil—are we to consider this unjustifiable generalization of a conception valid in its own sphere, as the higher truth? Is it not rather the unsatisfying conclusion to which weary thought may come back at any moment, if it gives up its unattainable but not the less certain goal? But as to all that is good and beautiful and holy—will the arising of this light out of the darkness of blind development be really more intelligible

than is, for us, the shadow of evil in the world which we believe to be cast by that light?

§ 7. If we go back to the facts which cause us to form the notions of *Good* and *good things*, we find that our conscience approves and enjoins definite kinds of disposition and volition — what are thus approved we call good; we find further that certain objects and their impressions upon us are felt by us to be helpful and agreeable—as being thus helpful they are called good when they correspond to some permanent and general need of our nature, but useful in as far as they are conducive to some isolated end, the importance of which as regards our whole destiny is left undetermined. Conscience and feeling by their indemonstrable but irreversible declarations directly assign these values to very various objects; but on the other hand, the similarity of the declarations urges us to seek in these various objects similarity of the grounds upon which those declarations have been made concerning them. This path of abstraction leads us to find by comparison of individuals the invariable condition in virtue of which any content is good, useful, or beautiful. But the end of this path may be conceived in two different ways. Either there appears as such a condition only a universal formal relation which has reality not in this universality, but only in any one of the individual forms from which it was abstracted; or a hope is entertained of reaching some universal which actually exists in such universality, and in fact *is* that which it indicates as a quality in the individual real thing.

With regard to what is useful and what is agreeable, we all think that we are in the first case, and the scientific instinct of our time does not, like that of antiquity, seek what is useful *in itself* or what is agreeable *in itself*. We are content if we can find general notions of both, which are not in themselves that which they denote in other things. For as in general no notion is that which it connotes—as the notion of red is not red, and the notion of sweet is not sweet —so also the contents of the general notions of what is

useful and of what is agreeable are not themselves agreeable and useful, but they are conditions under which agreeableness or usefulness appear as predicates *of something else,* that is of the individual real thing which fulfils these conditions. On the other hand, Beauty-in-itself and Good-in-itself are still goals and even starting-points of manifold speculations. In these two cases men seek to find in the universal not only conditions under which something other than the universal itself, something fulfilling the conditions, is beautiful or good, but also seek to find something which is *in itself* the goodness or beauty which we originally know only as a quality in the individual. I leave beauty to the reflection of the reader, and only pursue the question whether and how the peculiar nature of what is good makes it possible to carry out in its case the task which is not, in all cases, practicable.

Actions are not good simply as events that occur, nor their results simply as facts that have been established—it is only the will from which the actions proceed that is good. And the will itself is regarded as good not as a mere impulse to execution, but as the outflow of a frame of mind which is not simply knowledge of a command but also agreement with it, and this agreement is not—like the obedience of any natural force to the law which it follows—a mere factual agreement, but is a case of compliance where non-compliance was possible. And it must be not simply a possibility of disobedience which is perceived, but the disobedience, by its own worth, which it opposes to the worth of the command, must withstand the tendency of the will to compliance. But worth can exist only for a sensitive subject; whatever may proceed from an intelligence that feels neither pain nor pleasure and from a will guided thereby, no moral judgment could be passed upon it. And finally, we should not even call good the frame of mind of him who, by a choice involving no sacrifice, should simply prefer the worth which is greater, both objectively and to him, to the worth which is lesser; on the contrary, that which for the feeling mind is the nearest and most urgent worth, must be sacrificed to some other worth, which to it, as

feeling, is not greater—the welfare of self must be sacrificed to the content of a recognised command.

From this point our path diverges from that of the popular view with which hitherto in this hasty recapitulation of familiar points of view it has coincided. For as we long since acknowledged, we do not agree with those who seek this higher worth in an Idea of the Good which requires men to strive after some formal relation of wills to one another, or the realization of some particular condition of things as a directly binding duty or as the Supreme Good. No relation however profound between conditions and events which merely occur without their harmony being enjoyed by any one, is a good in itself, and no will is good because, being conscious of the complete unfruitfulness of such relations, it yet devotes itself to establishing them. If any heart postpones its own good to some other good, this other can only be found in the happiness of some one else, and the sacrifice is good only because it is made on this account. *Good* and *good things* do not exist as such independent of the feeling, willing, and knowing mind; they have reality only as living movements of such a mind. What is good in itself is some felt bliss; what we call good things are means to this good but are not themselves this good until they have been transformed into enjoyment; the only thing that is really good is that Living Love that wills the blessedness of others. And it is just *this* that is the *Good-in-itself* for which we are seeking; this, having reality as a movement of the whole living mind which feels, wills, and knows itself, is just on that account not merely a formal general condition the fulfilment of which by any other thing would entitle that other to the appellation of good, without the condition itself being good;" but this it is which alone in the true sense has or *is* this worth, and all else—resolves, sentiments, actions, and special directions of the will—all these share with it only derivatively the one name of good. We, finite beings, included in a world the plan of which is not revealed to us, cannot allow benevolent love to act unregulated in the hope

that however it may be directed by our defective foresight, it will lead to the good at which it aims; our conscience holds up before us in a number of moral commands the general laws under the guidance of which our action, however variously caused, is sure of taking the right path—but there is not set before the Divine Being in like manner a Good-in-itself that takes the form of a command valid even for Him. No kind of unsubstantial unrealized and yet eternally valid necessity, neither a realm of truth nor a realm of worth is prior as the initial reality; but that reality which is Living Love unfolds itself in one movement, which for finite cognition appears in the three aspects of the good which is its end, the constructive impulse by which this is realized, and the conformity to law with which this impulse keeps in the path that leads towards its end.

In returning for the last time to this thought, which, from the beginning of these concluding considerations, has been hovering before us, I would recall the confession of its scientific impracticability made at the commencement of this Book (supra, p. 572 *seq.*). This limitation of our capacity has in a general way been confirmed by numerous attempts, which we cannot but respect, and which in individual cases have borne much fair fruit, in clearing up and establishing our vague convictions. Christian ethics would be likely to succeed best in exhibiting particular moral Ideas as the various forms which active Love must prescribe to itself. It would be able to show that all the sterner and apparently more exalted forms of morality which distinguished the heathen heroism that "scorned delights," are yet nothing compared to the gentleness of Love, and nothing unless they have their root in it; that all the commands which, in a scientific point of view, particularly attract our attention, by the definiteness of their content and the ease with which they may be drawn out into a series of sharply defined maxims, are nothing more than a mechanism devised for its own development by the principle of Love, which seems comparatively formless and, as it were, merely potential. On the other hand, the attempts

to explain existing reality from the same principle will always be far less convincing. In the first place, not one of them, in trying to express its meaning, has in its description of the tasks and the needs of that Everlasting Love which is regarded as the source of the universe, been able to avoid such an extended use of analogies drawn from the life of the human soul, as must necessarily displease scientific instinct. We cannot otherwise than unwillingly see the core of our conviction, of which in its simplicity we are sure, developed into a system, if this has to illustrate the origin of things by ideas the meaning of which only becomes clear through references to connections occurring much later in the course of the world which we are explaining, and to reduce the figurative expression of which to its real significance (which in this case is admissible) would be an almost interminable task. This general insecurity is intensified by the frequent endeavour to immediately derive particular forms of reality from particular impulses which are supposed to be discovered in the nature of the Supreme Principle. Whatever the world may be in which Creative Love manifests itself, that world is undoubtedly devised as a whole by that Love; from the whole of the ideal picture which Creative Love sets before itself, Nature and History as wholes have their task as a whole assigned to them, and carry it out by means of a connected system adapted to its realization. The labour of deduction would have to be directed in the first place to developing the existence of an universal mechanism in the procedure of all things from the notion of Supreme Love, and then to developing from the total content of that which this Love designs, that definite form of the mechanism which is adequate to the production of all reality, with steady order and unvarying fidelity. The fulfilment of this task, as we have already noticed, can hardly be carried out in the form of an unbroken deduction, starting from the principle itself—it will be possible only in more modest measure, as an explanation, by reference to the principle, of actually existing facts. For we do not possess either of Nature or of History such complete knowledge as would enable us to guess the whole of

the divine plan of the universe; the attempts that have been made to determine this from meagre earthly experience betray only too plainly the unfavourable nature of our standpoint, which, with all the one-sidedness of its limited outlook, wishes to be taken for that topmost summit, from which the whole world may plainly be seen spread out below. This lack of a commanding view is the reason why those attempts so often err in estimating the reality of their particular objects; they present as the immediate ends of the creative Idea that which even an empirical knowledge of things regards as only a very incidental consequence of general laws, and thus they fall into permanent disagreement with physical science, which in its own less lofty region, rules with an incomparably superior exercise of exact knowledge.

But it is not only the different moral Ideas and the forms of reality that would have to be explained from the same source of Eternal Love—the eternal truths also, the sum of that which, as it seems to us, we must necessarily think, and which could not be otherwise, must be similarly explained. If the scientific solution of this task appeared to me possible, I would employ all my powers in trying to carry it out; for only thus could I furnish a complete justification of my belief that the sphere of mechanism is unbounded, but its significance everywhere subordinate. I should have to show that the fact that truth exists at all cannot be understood by itself, and is only comprehensible in a world of which the whole nature depends upon the principle of Good that we learnt to know in Living Love itself; and no less should I have to point out specially how it is but of the nature of this Love, and, as it were, its primary work, to establish an universal order and regularity, within which various individuals, comparable in kind, could be brought into a connection of reciprocal action. If this eternal sacredness and supreme worth of Love were not at the foundation of the world, and if in such a case there could be a world of which we could think and speak, this world, it seems to me, would, whatever it were, be left without truth and order. I should further have to call to

remembrance that the strongest pillar of all truth, the Law of Identity, of which we were conscious as a sheet-anchor amid the complications of those contradictory phænomena of reality which we have just been considering, might easily appear to us as a truth that prevails of its own power and uncaused; but that even its own content is but the formal reflection of that significant trueness to itself, the immediate connection of which with the supreme worth of Goodness we are again strongly conscious of, when we assume the eternal identity of God with Himself not merely as a logical perfection of the notion of God, but also as an ethical perfection of His nature. I should then have to show what is meant by saying that there is something which we call adequate cause, and causal connection; however impossible it may seem to us that either of these should have been other than absolutely primary, we are yet just as directly conscious that a world would be unmeaning in which one thing should be established or produced by another merely in order that things should be or should happen after this fashion. If the natures of things are such that two can join in any way so as to become the adequate cause of some third, this marvel is to me intelligible only in a world in which what is aimed at is not mere occurrence of some kind, but deeds that are to have results, and the freedom of which presupposes an universal reign of law as well as fruitfulness in the production of new results in the world of things, results which furnish this freedom with aims and objects of its endeavour. From this consideration of the metaphysical principles of all our cognition, we should have to go on to mathematical truths and their validity in the world of reality. We would not indeed commit the solecism of trying to deduce mathematical propositions from other principles than the fundamental ideas of mathematics itself; but of those fundamental ideas — the ideas of magnitude, recurrence, equality, unity, plurality, addibility, divisibility— we should have to show that the fact of their thinkableness is not a bare and uncaused fact, but an essential presupposition of that order which the Good as Supreme Principle imposes

on the world, and which another principle (to express the empty thought for clearness' sake) would not have imposed upon it in a similar fashion We should have to refer to the dominion of mathematical truth over reality, and to show as regards it that it is only in a period of as yet imperfect elaboration of mechanical science that the regularity of Nature seems to be of an unique kind, recognisable only by means of the magical rules of an arithmetic abounding in formulæ, and not capable of being reduced to simple ideas; the further mechanics progresses, the more do we see its most general results revert to the form of propositions, the easily understood sense of which (pointing out everywhere what is most simple and rational as the law of action) may be expressed in notions, and needs a mathematical dress only in order that the signification of these notions may be made susceptible of those precise determinations of magnitude which they require in application to the concrete. And so the time may come in which these simplified propositions of all mechanics will become more directly connected with the Supreme Principle, and will admit of being interpreted as the last formal offshoots of that Good which is the beginning and the end of the whole universe.

Much might yet be said upon this subject; but I will not part from the reader with a profession of holding back some important knowledge concerning these questions. On the contrary, any further development that we might seek to give to these thoughts would not satisfy us, but in its inevitable incompleteness would be open to the reproach of being mere sentimental trifling. I participate fully in the scientific instinct whence this reproach would spring; and since everywhere in these discussions I have contented myself with an explanation of those intelligible principles which may be of use in the examination of our doubts, and on the other hand have never entered upon those vast regions which hitherto have been filled only by the vague imaginings of poetic fancy, it may here be sufficient to express once more my faith in a goal from attaining which we are held back by a chasm which it seems impossible to fill up.

§ 8. It is but seldom that after a long journey we have the satisfaction of being able to say to ourselves that we have not passed by any eminence which promised a good outlook, and have examined all the best points of view, and that we have never, through lingering in any one spot longer than was fitting, on account of some insignificant attraction, neglected to seek out any more important prospect obtainable from a neighbouring point. And still less shall we succeed in grouping together the manifold moods and thoughts which arose in us by the way, into one simple memory-picture without giving up much which in the brightness of its living individuality attracted and enchained us. Such self-reproaches and such difficulty do I feel in parting from a work of which I desire to express yet once more the essential meaning, unburdened by the special explanations which I have undertaken in it. It would be vain to attempt this in any other way than by emphasizing once again the scientific attitude which has guided and been at the foundation of the whole—on the one hand a struggle against veneration of mere empty forms, and over-estimation of what is but presupposition or result, means or mode of manifestation, of that which is truly worthy and living and real; and connected with this the struggle against all fanaticism which would like to see the Supreme Good active in some other way than that which it has itself chosen, or which believes that Good to be attainable by some shorter path than the roundabout way of formal orderliness which it has itself entered upon.

From this attitude arose our respect for the scientific worth of mechanical investigation in Nature and History, and from it likewise our obstinate refusal to see in all mechanism anything more than that form of procedure—susceptible of isolation in thought—which is given by the Highest Reality to the living development of its content, which content can never be exhaustively expressed by this form alone. And this struggle has been not only against materialistic views, but also and equally against that Idealism which imagines itself to be fighting against them for the right. It seemed to us

wholly indifferent whether the most essential core of reality from which all else is to proceed as a matter-of-course accessory should be sought in soulless atoms, blind forces, and mathematical laws of action, or in necessary notions of any kind, in relative or absolute Ideas, and the jugglery of their dialectic movements. All these views uniformly degrade Nature and History by making them representations of something absolutely indifferent and worthless, the presence of which in the world of thought is only comprehensible when it is thought as the final formal reflection of the living mind and its living activity.

And as in knowledge so it seemed to us in life also to be the sum and substance of wisdom neither to neglect what is small nor to give it out as great; to be enthusiastic only for that which is great, but to be faithful even in the least. We agreed neither with endeavours to arrange human relations in accordance with ingenious suggestions, without regard for the universal mental mechanism by which Right is realized, nor with schemes which having stiffened into rigidity in the service of this mechanism can further nothing but the establishment of orderly conditions. It seemed to us that everywhere the universal was inferior as compared with the particular, the class as compared with the individual, any state of things insignificant as compared with the good arising from its enjoyment. For the universal, the class, and the state of things, belong to the mechanism into which the Supreme articulates itself; the true reality that is and ought to be, is not matter and is still less Idea, but is the living personal Spirit of God and the world of personal spirits which He has created. They only are the place in which Good and good things exist; to them alone does there appear an extended material world, by the forms and movements of which the thought of the cosmic whole makes itself intelligible through intuition to every finite mind.

It may be thought that our conclusion is fanatically enthusiastic; still we would repeat here an avowal that we have made before—the avowal that when we view the world as a whole

we see everywhere wonders and poetry, that it is only limited and one-sided apprehension of particular departments of the finite that are prose. But to this we would add that it is the business of men not to take the name of these wonders and this poetry in vain, and to revel in continual contemplation of them, but above all things to cultivate that more modest realm of scientific knowledge which is able not indeed to lead us into the promised land, but to keep us from wandering too far out of the road that leads to it.

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